# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 856.---Vol. XXII.] LONDON, SATURDAY, JANUARY 17, 1852. [Price 6d.


TO CAPITALISTS, COAL PROPRIETORS, AND OTHERS.

MR. LLOYD will SELL, BY AUCTION, at the Royal and White Horse Hotel, Holywell, in the county of Flint, on Tuesday, the 27th day January, 1852, at One o'clock in the afternoon, subject to conditions, all that valuable COLLIERY, CALLED THE

LOWER COLESHILL COLLIERY, 1

situate at BAGILLT, about two miles from the market town of Holywell, midway between Holywell and Flint, in the county of Flint, held under lease, at easy royalties, from the Right Hon. Lord Vivian for a term of 21 years—nearly 19 of which are unexpired.

The extent of land comprised in the lease is about 400 acres, underneath which FOUR SEAMS of COAL have been proved to exist, of the respective thickness of 5 feet 9 inches 4 feet 6 inches, 4 feet, and 2 feet 3 inches—making a total thickness of 16 ft. 6 in.

Four pits or shafts have been sunk, but only two of them are at present available; and in two-thirds of the land the coal is entirely unwrought.

A powerful high-pressure pumping and winding steam-engine has been recently erected, having double beat brass valves and metallic spring pistons, cylinder of 21 inches, with stroke of 4 feet 4 inches, two high-pressure boilers, with pumping and winding gear, 100 yards of 10-inch pumps, with main-rods in the pit—all in full and complete working order. This colliery offers advantages to capitalists rarely to be met with; it possesses an inexhaustible supply of coal of excellent quality, which can be brought to the surface for 3s. per ton, including all expenses. It is situate at the east end of Bagillt, within 200 yards of the Chester and Holyhead Railway, with which it may be easily connected, and within 400 yards of the River Dee, in which is a good "deep," where coals can be readily shipped for Liverpool, Chester, Ireland, the Isle of Man, and the English and Welsh coasts. For local advantages also, the position of the colliery cannot be surpassed, having a good turnpike-road immediately contiguous, and being within easy distances of the important and extensive smelting establishments of Messrs. Walker, Parker, and Co., Messrs. Mather and Co., Messrs. Newton, Keates, and Co., and others. An inspection of the property will at once afford evidence of its being a most eligible investment.

N.B.—Offices, weighing-machine, stable, and coach-house, conveniently attached, are included in the lease.

Any further information relative to the colliery may be had on application to Mr. John Jones, colliery agent, Feathers-lane, Flint; and Mr. S. Savage Kenrick, Greenfield Lodge, Holywell; and for any other particulars, apply to the auctioneer, at his offices, Park-place, Ruthin; or to Mr. William Williamson, solicitor, Well-street, Holywell, from whom lithographed plans, &c., may be obtained.

Park-place, Ruthin, Dec. 24, 1851.

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MINE MATERIALS FOR SALE.

TO BE SOLD, BY PUBLIC AUCTION, on Tuesday, the 27th of January, 1852, at Ten for Eleven o'clock forenoon, at EAST TYWARNHAYLE MINE, in the parish of ST. AGNES, CORNWALL, the following valuable

MINING MATERIALS: 2

A 36 inch cylinder STEAM-ENGINE, 8½-feet stroke, equal beam, with 10-ton boiler, built about 10 months since by Messrs. Sandys, Vivian, and Co.

Capstan and shears, 3 horse-whims. capstan and whim chains
16 9 feet 8-inch pumps
9 9-feet 7-inch ditto
1 8-inch H-top doorpiece and door
1 7½-inch clack doorpiece
1 8-inch ditto
1 7-inch plunger pole, stuffing box, and gland
1 8 inch pole case
1 12-feet 7½-inch working barrel
1 10-feet 7½-inch ditto
1 9-feet 7½ inch windbore
1 4½ feet 7½-inch ditto
7 fathoms 4 inch lift, complete
18 fathoms pump-rods
10 fathoms 8-inch rods

Rod plates and pins, flange bolts and bars, 2 smiths' bellows, 2 anvils, 2 vices
Screwing stock and tools, smiths and miners' tools, smiths' horse
6 horse-whim kibbles, 4 winze kibbles

New and old iron, scales, beams, and weights, scale stand, clack seatings, 46 fathoms ladders, 20 fathoms launders, air-pipes, new and old timber, wood roofs of timber and dressing houses, bucking mills, jigging serves and hutches, grindstone and stand, miners' chest, new and old tackle rope, white yarn and hemp, grease, nails, shovels, and sundry other articles. Also, the ACCOUNT-HOUSE FURNITURE.

For viewing the same, apply to the agents on the mine, or to Mr. Thomas Tyack, auctioneer, &c., Camborne.

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TO IRONFOUNDERS AND THE IRON TRADE.—EXTENSIVE SALE AT KELVIN FOUNDRY.

TO BE SOLD, at the KELVIN FOUNDRY, about two miles from Glasgow, by the Garscube-road, on Tuesday, the 27th of January, and following days, the whole valuable

STOCK IN TRADE, 3

Comprising about 300 tons of select MOULDING BOXES, superior patterns in iron, brass, and tin, for grates, stoves, boilers, pots, and other hollow ware; patterns in iron and wood for gas and water pipes, conductor pipes and roans, with all their connections; patterns and mandrills, for all sizes of cast bushes, corebars of cast and wrought-iron, ladles, and the WHOLE FOUNDRY TOOLS and WORKING PLANT; smiths' tools, anvils, bellows, and vices; also turning lathes, grinding and polishing gear, 7-ton Derrick crane for yard, common cranes, proving machine for pipes, carts and cart harness, office furniture, &c.

The whole has been made during the last few years, at great expense, for the London, Irish, and Scotch markets, in all of which the Kelvin Foundry work maintains a high character, and all are in excellent working condition.

Catalogues will be ready eight days previous to the sale.—Sale to begin each day at Eleven o'clock forenoon. BARCLAY & SKIRVING, Auctioneers, Glasgow.

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PAULTON, SOMERSET.

TO COAL PROPRIETORS, ENGINEERS, FOUNDRYMEN, AND OTHERS.

VALUABLE AND EXTENSIVE SALE OF MACHINERY. 11

MR. HENRY BLINMAN begs respectfully to announce, that he is honoured with instructions from the proprietors to SELL, BY AUCTION, without any reserve, on Wednesday, the 28th of January, 1852 (and following day, if required), commencing at Ten o'clock A.M., all the extensive and truly valuable

MACHINERY AND PLANT,

Lately used in working the PAULTON ENGINE COAL-WORKS.

Also the WAGGONS, CARTS, HORSE, HAY, TIMBER, and EFFECTS, comprising—

A very valuable and powerful double-acting STEAM-ENGINE, for winding, with 31-inch cylinder, suitable air pump, condenser, and two boilers attached to the same, with winding parts, the whole being complete.

One powerful ENGINE for pumping, close-top cylinder, 46 inch diameter, with suitable air pump and condenser, nearly new boiler, the whole of which is in complete repair.

Also, one double-acting STEAM-ENGINE, 16-inch cylinder, boiler, air-pump, and condenser.

180 fathoms of 9, 8½, 7, and 6-inch PUMPS, with working plungers.
Various PUMP RODS, with necessary iron straps, cap-heads, bolts, &c.
One CAPSTAN, shear blades, and three cast wheels.
One flat-grooved WHEEL, with gudgeons, shear blades, straps, &c.
160 fathoms of 6½-inch flat ROPE.
Three exceedingly good round ROPES, of different sizes and lengths.
Nine wrought-iron hudges, one useful boiler, two lifting cranes and chains, pit runner, screens, one pair of brass-wheel blocks, three snatch blocks, quantity of chain, two punching engines, 95 pit, land, and two coke tram waggons, two horse gins or drums, two weighing engines, 6000 yards of tram plates, wrought-iron, a general assortment of smithing and carpenters' tools, two dials, two dozen new shovels, a variety of old brass and cast-iron, stock of timber and lags, broad wheel waggon, ditto carts, field roller, a very handsome and strong cob horse five years old, breech and thill harness, capital mow of meadow hay, about 20 tons. Also, the buildings, fixings, workshops, stables and sheds, with an infinity of other valuable and useful lots not particularised.

N.B.—Descriptive particulars in catalogues are in course of preparation, and may be obtained 10 days prior to the sale, at the Saracen's Head Inn, Temple-Gate, Bristol; Greyhound Inn, Bath; principal inns in the neighbourhood; the auctioneer, Temple Cloud, near Bristol, or at the place of sale, where a person will show the property.

Paulton Engine is situate about 10 miles from Bath, 12 from Bristol, and adjoins the Somersetshire coal canal.—Dated Temple Cloud, 20th December, 1851.

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WEST WHEAL JEWEL MINE, IN THE PARISH OF GWENNAP, CORNWALL.

MR. C. WARTON is directed TO SELL, BY AUCTION, at the Auction Mart, London, on Thursday, the 29th day of January instant, at Twelve o'clock noon, in one lot, the valuable

SETTS OR GRANTS OF THE ABOVE MINE, 5

of which there are four years unexpired, subject to 1-12th dues; together with TWO PUMPING ENGINES, STEAM WHIM, and all other MATERIALS, MACHINERY, ORES, HALVANS, COUNTING-HOUSE FURNITURE, and OTHER EFFECTS belonging to the said MINE.

The mine and effects are to be sold pursuant to a resolution of the shareholders for dissolving the Company, and further information, with orders to inspect the mine, may be had, and printed particulars and conditions of sale obtained, on application at the offices of the Company, 57, Old Broad-street; to the Purser, at the mine; to Messrs. Atkins and Andrew, solicitors for the company, 5, White Hart-court, Lombard-street; or at the offices of Mr. C. Warton, auctioneer and estate agent, 38, Threadneedle-street.

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MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE, LONDON, MINING BROKER, OFFERS his SERVICES to the PUBLIC for the PURCHASE or SALE of MINING SHARES—British or Foreign—and transacts business only for principals.

Mr. Crofts' weekly list comprises only such shares as he has actually on hand, or under control, but he may be consulted upon every description of mining shares, whether for purchase or sale. Dividend Mines pay from 10 up to 25 per cent. per annum. 6

WEEKLY LIST OF SHARES FOR SALE.

East Tolgus, East Wheal Leisure, West Towan, Bedford United, North Tamar Consols, Wheal Edward, Devon Burra Burra, West Alfred Consols, Rocks and Treverbyn, Fowey Consols, Wheal Golden, Calstock United, Wheal Brewer, Bell and Lanarth, Wheal Zion, Lamheroge, South Tamar, East Wheal Reeth, Nouveau Monde. &c.

The Growing Attention to Mining Shares is rapidly increasing the value of all good Mines, both dividend and progressive; and the new discoveries of gold districts in Australia—which must be followed by still further discoveries there and elsewhere—cannot fail to render capital abundant, and to give solidity to all well-based Californian and Australian shares; upon which, and all questions relating to British Mines, Mr. Crofts may be consulted.—Office hours Ten to Five; Mining Exchange (Hall of Commerce), Twelve to Two.—January 16, 1852.

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MR. JOSEPH J. REYNOLDS, SWORN BROKER,
*No. 23, THREADNEEDLE-STREET, LONDON.*

BUSINESS transacted in GOVERNMENT STOCKS, RAILWAY and MINING SHARES, &c.—Having been connected with the management of mines in the most productive districts of Cornwall upwards of 20 years, and being in daily communication with the most respectable mining agents in various parts of the kingdom, Mr. Reynolds is enabled to furnish such information to capitalists as may be relied on.—Jan. 16, 1852.

Mr. J. J. REYNOLDS has SHARES FOR SALE in the following MINES:— 7

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|---|---|---|
| Allt-y-Crib | Millpool | Trethevy |
| Bedford United | Mendip Hills | Treville |
| Black Craig and Craigton | North Levant | Trenault Quarry |
| Bargally | North Basset | Unity Consols |
| Condurrow | Rocks and Treverbyn | West Alfred |
| Caradon Vale | Pendarves & St. Aubyn | West Basset |
| Carn Brea | Pendarves Consols | Wheal Brewer |
| Devon and Cornwall United | Silver Valley | West Phœnix |
| East Black Craig | Sydney Godolphin | Wheal Gill |
| Great Wheal Alfred | South Condurrow | Wheal Lovel |
| Great Wheal Baddern | South Phœnix | Wheal Susan |
| Galt-y-Maen | Stray Park | Wheal Golden |
| Great Sheba Consols | St. Aubyn and Grylls | Wheal Lemon |
| Levant Molland | Tremayne | Wheal Margaret |

*** Many of the above are well worthy the attention of capitalists.

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MESSRS. FRANCIS & CO., in order to avoid the complicated and indefinite system of Calls for working or proving mines, consider that a better and more satisfactory one will be found in offering the public those chiefly in which the machinery and underground work required to bring them into a state of profit has been completed and paid for. 8

In mines thus far advanced, it will be obvious that as there will be no risk, so there can be no necessity for calls—the speculative part of the adventure having been gone through; and in this way capitalists will be enabled to invest with the certainty of immediate returns.

Mr. MATTHEW FRANCIS takes leave to announce, that he has several THOUSANDS of POUNDS WORTH of SHARES to DISPOSE OF, which, at the selling price, give a profit of from £20 to £40 per cent.

*** Offices, No. 7, John-street, Adelphi, London.

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GENERAL MINING AND MINE REPORTING OFFICES,
1, *CROWN-COURT, THREADNEEDLE-STREET, CITY.*

Messrs. M. FRANCIS & CO., MINING BROKERS, appreciating the desideratum of PROVIDING the most AUTHENTIC INFORMATION respecting BRITISH & FOREIGN MINES for those who desire to INVEST SAFELY, have OPENED this OFFICE for the REGISTRATION AND CLASSIFICATION OF THE DIVIDEND-PROMISING AND WORKING MINES. 9

Their REGISTER will be found a VALUABLE INDICATOR, as, from more than twenty years' experience in the successful selection and management of mines, they can confidently advise, so as to insure the most certain and remunerative returns.

*** Shares Purchased and Sold—Mines Inspected, &c.

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GOLDENHILL COBALT, NICKEL, COLOUR, AND CHEMICAL WORKS, NEAR NEWCASTLE, STAFFORDSHIRE.
JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER. 10

*Reference.*—Professor Miller, King's College, London.

*** A QUANTITY OF BISMUTH TO DISPOSE OF.

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MR. ALFRED SENIOR MERRY, DEALER in COBALT AND NICKEL ORES, AND ASSAYER IN GENERAL.—Address:
*LEE-CRESCENT, BIRMINGHAM.* 11

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MR. THOMAS JORDAN, METAL BROKER,
No. 75, OLD BROAD-STREET, CITY, exclusive AGENT for one of the BEST MAKERS of HAMMERED IRON, for MARINE, LOCOMOTIVE, and other ENGINES. Also AGENT for the SALE of SOUTH STAFFORDSHIRE and WELSH BAR, BOLT and BOILER PLATE IRON, in all its varieties. The Proprietors of Lead and Copper Mines in Devon, Cornwall, Wales, &c., will find great advantage in the quality and cheapness of the Iron they require, by seeking quotations through the Advertiser. 12

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MR. JOHN DAVIES, MINING SHAREBROKER,
*No. 17, EXCHANGE-ALLEY NORTH, LIVERPOOL.* 13

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MR. BELL WILLIAMS, MINE AGENT AND VIEWER,
*No. 16, CASTLE-STREET, LIVERPOOL.* 14

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MESSRS. MOLYNEUX AND CO., 34, THREADNEEDLE-STREET, CITY, MINE and MINING AGENTS, beg to state, that they have TAKEN spacious OFFICES, No. 10, BUCKINGHAM-STREET, ADELPHI, STRAND, for the SALE and PURCHASE of MINES and MINING SHARES, and the MANAGEMENT of MINING COMPANIES, and have constantly ON SALE SHARES in most of the DIVIDEND-PAYING and other PROSPEROUS MINES, which will insure to capitalists the safest and most unexceptionable investment.—Daily communication received from their agents in Cornwall, Devon, and Wales, and every information and advice given on all mining matters.—N.B. Office hours from Ten to Four o'clock.

Offices,—10, Buckingham-street, Adelphi, Strand, and 34, Threadneedle-street, City. 15

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MESSRS. TREDINNICK AND CO., MINING, BANKING, INSURANCE, and GENERAL AGENTS, continue to NEGOCIATE every description of BUSINESS connected with the ABOVE SECURITIES. They have always ON SALE SHARES in DIVIDEND MINES in Cornwall, Devon, and Wales, at prices yielding purchasers from 15 to 25 per cent. per annum upon market value.—Statistical and other information gratuitously upon application, and money advanced in anticipation of sales.—Agency Offices: No. 6, HAYMARKET, PALL MALL, and 3, GEORGE-YARD, LOMBARD-STREET, LONDON.

*** Correspondence to be addressed to the Western Branch. 16

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MINING OFFICES,—ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

Mr. R. TRIPP, MINE AGENT, has FOR SALE SHARES in the best DIVIDEND MINES, English and Foreign, which, at present low market values, are paying 25 per cent. upon the purchase, including Devon Great Consols, South Caradon, West Caradon, Alfred Consols, Par Consols, Wheal Reeth, Wheal Seton, Bedford United, Wheal Mary Ann, Wheal Tremayne, Botallack, Condurrow, West Providence, Wheal Golden, Tincroft, and Treviskey and Barrier. 17

Also in the following, having present and prospective advantages—viz.: Wheal Arthur (Calstock), West Alfred Consols, South Tamar, Langford, East Wheal Margaret, Trebarvah, Wheal Crebor, Trebell Consols, &c.—St. John del Rey, Cobre, Coplapo, Linares, and in the Californian and Australian Mines.

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VERY IMPORTANT TO ENGINEERS, MACHINE MAKERS, MILLWRIGHTS, CONTRACTORS, MINERS, SMITHS, BROKERS, AND OTHERS. 18

MR. W. KIRK most respectfully announces that he is honoured with instructions from Messrs. Jones and Potts, engineers, and proprietors of the extensive works known as the VIADUCT FOUNDRY, NEWTON, near WARRINGTON, who are declining business, to ARRANGE, CATALOGUE, and SELL BY AUCTION, early in March, 1852, the WHOLE of their truly valuable PLANT, STEAM-ENGINES (stationary and locomotive), TOOLS, MACHINERY, UTENSILS, and EFFECTS, together with all the valuable estate upon which the said works are erected, which consist of 77 cottages, gas works, and fittings; all the substantially-built brick buildings, constituting the various and extensive workshops, foundry, warehouses, counting-houses, offices, &c., the whole covering an area or plot of land of 5 acres 2 roods 14 poles, statute measure, with which it is proposed to sell the following items, in one lot:—The two valuable stationary-engines, of 20-horse power each, with boilers complete; the whole of the powerful shafting for working the machinery, two fan-blasts, for blowing the smiths' fires, 40 smiths' hearths, with blast pipes, one large hooping furnace, three cupolas, large crane, moulders' stone and carriage, in foundry, and about 600 yards of railway, inside and outside of works, with three turn-tables, communicating with the London and North-Western Railway; the whole held upon three leases for 999 years, each bearing date respectively March 25th, 1839, January 27th, 1847, and December 26th, 1849.

Full particulars of the whole will be given in future advertisements, and in descriptive catalogues, which will be prepared in due course; and in the interim, any further information may be had on application at the offices of the Auctioneer, 24, Princess-street, Manchester; or at the Works.

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MR. T. P. THOMAS, MINE AGENT, 75, OLD BROAD-STREET.—Established nine years.—Mr. T. P. THOMAS begs to inform capitalists and the public that he is at all times in a position to BUY or SELL, at close market prices, in dividend and respectably established BRITISH and FOREIGN MINES; and having a local knowledge of the principal Cornish and Welsh Mines, from periodical personal inspection, &c., will be happy to furnish information by post or otherwise. 19

N.B.—Mines inspected and reports furnished.

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MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND-PAYING MINES FOR SALE, and which will give the purchaser 15 to 20 per cent. for the outlay. Amongst others are the following:— 20

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| East Wheal Rose | Great Devon Consols | South Basset |
| West Caradon | Tremayne | South Frances |
| Alfred Consols | West Providence | North Basset |
| South Caradon | Botallack | Cobre |
| Treviskey and Barrier | Bedford United | St. John del Rey |
| Mary Ann | Trelawny | &c. &c. |

And has also FOR SALE SHARES in MINES having a PROMISING APPEARANCE, and affording greater range for speculation, such as—

| | | |
|---|---|---|
| West Alfred | East Buller | Tincroft |
| West Towan | South Tamar | Tamar |
| Cefn Bruno | Treleigh | Garreg |
| East Daren | North Downs | And the gold mines. |

Mining Offices, 33, Clement's-lane, Lombard-street.

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MR. JAMES STRIDE TRANSACTS BUSINESS at the HALL OF COMMERCE, THREADNEEDLE-STREET, and at the JAMAICA COFFEE-HOUSE, CORNHILL, as MINING SHARE DEALER and AGENT. 21

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MR. GEO. CARNE, DEALER IN STOCKS and SHARES, 28, *THREADNEEDLE-STREET, LONDON.* 22

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MINING RECORD OFFICE, 26, Austinfriars, London.—Mr. MANUEL'S OFFICES are expressly for the USE of COMMITTEES and COMPANIES conducting their BUSINESS in LONDON, and is entirely free from share-dealing. Mr. MANUEL will be happy to CONDUCT the LONDON AGENCY of any MINES now at work, or about to be worked, he having spacious and convenient OFFICES for that PURPOSE.—Terms on which the business is conducted to be had on application, either by letter or in person. 23

Sixteen years' experience will enable Mr. Manuel to give suitable advice on all occasions.—Offices of the West Wheal Rose, West Callington, Busparvo, Galt-y-Maen, Great Crinnis Consols, &c.

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MINING INVESTMENT.—T. FULLER and CO., No. 51, THREADNEEDLE-STREET, LONDON, beg respectfully to inform the public that they are in a position to BUY and SELL in all DESCRIPTIONS of MINING PROPERTY, which will pay from 15 to 25 per cent., upon present purchase, and have specially FOR SALE—Bedford United, Devon Great Consols, Wheal Mary Ann, Trelawny, West Caradon, Wheal Reeth, South Caradon, Tincroft, Trehane, Butterdon, Boringdon Park, Wheal Venton, Wheal Franco, Treleigh Consols, Trelyon Consols, Castle Dinas, Wheal Edward, Wheal Zion, and Wheal Surprise.—Also SHARES in the GOLD MINES of Australia and California. 24

Every information given, either personally or by letter.—Office hours, Ten to Four.

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SHARES FOR SALE in the following MINES:—Great Bryn Consols, Bottle Hill, Harriet, Allt-y-Crib, Zion, West Phœnix, Weston, Wheal Edward, Court Grange, Daren, West Polgooth, Great Sheba Consols, Bronfloyd, Silver Valley and Wheal Brothers, Wheal Langford and Baring, Bryn-Arian, Linares, Wheal Golden Consols, Crebor, West Wheal Grenville, Butterdon, Treville, Castle Dinas, Wheal Williams, East Russell, Hamlyn, Stray Park, Pendarves and St. Aubyn Consols, West Wheal Rose, Wheal Augusta, Bedford United, Wheal Providence, Lydford Consols, Great Wheal Baddern, Australian, and all dividend mines and gold shares. 25

SHARES WANTED.—East Alfred Consols, Mary Ann, and West Caradon.

Apply to Mr. J. H. MANDEVILLE, 22, Change-alley, Cornhill.

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ANY WEALTHY MINING GENTLEMAN, or any real CAPITALIST, who would like to make a great fortune in a short time, can now hear of an OBJECT which will PRODUCE a PRODIGIOUS AMOUNT of TREASURE very speedily, and thereby a great fortune will ARISE from it in a short time. The fruitfulness of this object is a metallic body of an unparalled richness, and of a leviathan size, which can now employ 300 stamping mills on ONE BIT of it alone, and which will produce more riches annually, for thousands of years to come, than any other property which is known in the world at present.—Apply by letter, post-paid, to "R. R.," at Heard and Sons, stationers, Truro, Cornwall. 26

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WANTED TO PURCHASE,—A SECOND-HAND STEAM-ENGINE, about 30-horse power (with or without a boiler). Also required, GEARING for DRIVING PUMPS, RAISING and CRUSHING LEAD ORE, &c.—Communications must contain full particulars, stating size of cylinder, price, &c., addressed to William Coates, Lagan Foundry, Belfast.—January 5, 1852. 27

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MODITONHAM AND MARRABOROUGH MINE.—TO BE SOLD, BY PRIVATE CONTRACT, the extensive SETTS which constitute this MINE, together with the ENGINE, PUMPS, MACHINERY, and MATERIALS.—The engine is a 20-inch cylinder, by West, quite new, having been at work only three months. The setts lie on each side of Goodlake, a branch of the River Tamar, and are directly east of, and a very short distance from, Wheal May, now successfully working. A shaft has been sunk 20 fathoms, and a cross-cut driven to intersect the lodes; and the Captain reports that he is within two or three fathoms of intersecting one of the main lodes in the sett, but satisfactory reasons can be given for the present sale.—For further particulars and terms apply to the purser, Mr. James Nicholson, 30, New Bond-street, London. 28

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MINERAL PROPERTY AND BLAST-FURNACE.—TO BE DISPOSED OF, in SOUTH STAFFORDSHIRE, a MINERAL PROPERTY, with a BLAST-FURNACE thereon, in full operation, and with every provision made for blowing another furnace when required. 29

The property is something under 70 acres, and includes valuable STRATA of COAL and IRONSTONE, and will be sold to a respectable and responsible person upon very advantageous terms, and a sufficient reason given why the present proprietor wishes to part with the same.

For further particulars and to treat, apply to Mr. John Southan, Batman's-hill, Bilston.

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TO BE SOLD, a PUMPING-ENGINE, of 16½-inch cylinder, with Boiler, complete, in good working order, with a wooden engine-house. This engine is well adapted to prove a mine to the 30 or 40 fm. level, for which purpose it has just been used. It is situate close to the turnpike-road, two miles from Bodmin, Cornwall, and can be removed and re-erected for a trifling cost. The lowest price for the whole, £180.—Address Mr. Welborne, 3, Hatton-court, Threadneedle-street. 30

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BLACK MARBLE QUARRY TO BE LET, at OUGHTERARD, in the county of GALWAY, conveniently situated for working; is within a quarter of a mile of the quay at Lake Corrib, from whence boats of 30 or 40 tons can convey the produce to the sea-port of Galway, distant about 16 miles.

Apply to G. F. O'Flahertie, Esq., Lemon-field, Oughterard, Ireland. 31

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WHEAL MARY EMMA TIN AND SILVER-LEAD MINE—LYDFORD.—A FEW SHARES in this promising MINE, TO BE SOLD, at 30s. per share.—Apply to Mr. Walter Dickson, 3, Canal Grove, Old Kent-road. 32

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WHEAL MARY EMMA.—CERTIFICATES will be EXCHANGED for the BANKERS' RECEIPT at the Offices of the Company, on and after FRIDAY, the 30th inst. By order of the Directors,
17, Gracechurch-street, Jan. 16, 1852. THOS. GRINTER, Sec. pro tem. 33

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CARADON VALE MINE.—A FEW SHARES FOR SALE in the ABOVE MINE, at £1 each, all calls paid.—Communications to be addressed to "D. B. F.," at the office of the *Mining Journal*, 26, Fleet-street, London. 34

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CONSOLIDATED COPPER MINES OF COBRE ASSOCIATION.—Notice is hereby given, that a HALF-YEARLY GENERAL MEETING of the proprietors of this Association will be HELD, in conformity with the Deed of Settlement, at the Office of the Company, No. 26, Austinfriars, on Tuesday, the 27th day of January inst., at One o'clock precisely. On that day two Directors—viz., George Probyn and Robert Passenger, Esqrs., and one Auditor, Alexander Druce, Esq., will go out of office by rotation, but are immediately eligible, and are candidates for re-election; at the same time another Auditor will be elected in the room of Frae. Mills, Esq., resigned. 35

It is necessary that parties intending to offer themselves as candidates for the Direction and Auditorship should leave notice of such their intention with the Secretary, at the office of the Company, 26, Austinfriars, at least 14 clear days before the day of election.

By order of the Court of Directors, WM. LEGGIE, Secretary.

26, Austinfriars, January 7, 1852.

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TAMAR SILVER-LEAD MINING COMPANY.—Notice is hereby given, that it being found necessary to provide further capital for the general purposes of this Company, the Directors have this day made a CALL of TEN SHILLINGS per share, to be PAID on or before the 11th of February next, to Messrs. Sapte and Co., 77, Lombard-street, bankers to the Company.

Dated Salvador-house, January 1, 1852. 36

## ON THE PRODUCTION OF GOLD AND OXIDE OF TIN.

BY EVAN HOPKINS, ESQ., C.E., F.G.S.

[Author of the "Treatise on the Connexion of Geology with Terrestrial Magnetism."]

There are many strange ideas regarding the origin of metals found in streams, such as the gold in the sands of California, Veraguas, Choco, Brazils, Africa, and Siberia, and also the tin in the streams of Cornwall, Devon, and in the Indian Archipelago. Some imagine that they are the produce of large lodes or veins, whilst others fancy that they are the production of metallic showers thrown up by some extraordinary volcanoes at some particular epoch in the history of our globe. Such loose conceptions proceed from persons who have had no opportunity of studying the real character of these deposits *in situ*, and more especially in those countries where such deposits are daily forming from the gradual disintegration of metalliferous granites and other primary rocks.

Gold, platina, and other metals not subject to oxidation, are frequently found in the debris of certain varieties of granites, porphyries, and their respective clay-slates. These productions depend on the *composition* and *structure* of the primary crystalline rocks, the degree of richness in which the metals are disseminated therein, and the internal chemical action by which joints and crevices are becoming gradually filled with metals, or are crystallized in the oxidating superficial exfoliations of the rocks. These superficial productions, of gold and platina especially, far exceed the quantities obtained from veins, and the metals thus extracted are much purer than those produced by the latter. We likewise find that auriferous rocks are much subject to decomposition, and thus producing and liberating their metallic contents in the divisions of the exfoliated surface, and only rarely in great fissures or lodes, like the sulphurets of the baser metals; and even in these rare cases the precious metal is found mechanically mixed in lodes of iron pyrites. This superficial process of metallic aggregation and decomposition in the auriferous rocks is *constant*, more or less, in every region on the face of our globe, depending entirely *on mineral and physical conditions*, confined to no age, nor to any particular zone.

Many have imagined that the Ural gold-works in Russia were lodes, or veins worked underground in the hard rock, like copper and lead lodes, instead of which, they are principally on deposits—*i.e.*, on the detritus or shingle accumulated on the slopes of the ridges and adjacent ravines and plains. The only subterranean works carried on there in the compact rock are those confined to small auriferous quartz veins, yielding, if any, but a slight profit. The auriferous quartz veins are very deceptive, generally speaking, sometimes glittering with gold on the surface, and with large masses in fractures, yet at a few fathoms in depth scarcely affording sufficient gold to pay the cost of extraction. Yet these very rocks, when left to the natural processes of decomposition and internal metallic aggregation, produce a rich debris at their base. Hence, no native washer will work in the compact quartz rock for gold whilst he is able to obtain *unwashed* deposits. The most productive gold veins to a moderate depth are the auriferous pyrites, such as the St. Juan del Rey, in the Brazils, and Marmato, in New Granada. The former is in clay slate, and the latter in porphyry; the gold thus obtained is of a low standard, as compared to the superficial production from quartz. The banks and slopes of the tributaries of the Sacramento, in California, are strewed over with the debris of the auriferous rocks forming the Sierra Nevada; the deposits being enriched by concentration in pools and other mechanical obstacles to the streams of water; and these deposits diminish in quantity, and are coarser in quality, as the acclivity of the mountains increases. This chain of mountains is similar to the Choco, in New Granada—viz., great ridges running more or less in the meridian, composed of immense parallel bands of auriferous granites, gneiss, porphyries, chloritic slates, hornblende, and quartz rocks, intersected transversely by the deep ravines above alluded to.

The gold washings of El Mineral de Veraguas were once very productive, and are still the most important in the Isthmus of Panama. However, like other old gold washings, the accumulated auriferous debris of the hills and valleys have been all washed over; no important gold lodes have been discovered, and the gold quartz veins not being found sufficiently productive to pay cost beyond the surface, the natives relinquished the task, and are now rewashing the old sands, together with what is brought down by floods from the flanks of the granitic chain. The gold obtained from these washings is of a large grain in the higher parts of the ravines, and diminishes to a very fine grain down in the plains, and is of a high specific gravity. The natives of the gold districts are generally expert washers, and know the localities where the gold mostly accumulates, and the kind of rocks which produce it. To an European these gold-washing scenes are pictures of misery; the diggers and washers toil and live like the beasts of the forest, feed on the coarsest food, and sleep often without shelter. The great inconveniencies attending the washing for gold, are the necessity of being almost constantly in the water, and the laborious work of removing the large stones to get at the inferior deposit, which is the richest for the precious metal. This kind of work is precisely similar to that carried on in the tin stream districts on Dartmoor, Bodmin Moor, St. Austell, &c., all of which must be done by manual labour. The extraction of the gold from the sand after the auriferous bed has been taken up from under the stones, is easily effected by means of screens, and perforated plates fixed on hollow inclined trunks, with a small stream of water running over. The washing process is easily done by various simple methods, and the light sand is carried away by the stream of water, leaving a black ferruginous substance behind, in which the gold is usually enveloped.

By bruising and washing the most compact quartz in the auriferous granites and porphyries, we detect gold in an impalpable state of dissemination, forming, in fact, a portion of the compound, like the salt in the sea; but it is in the small fissures only, or in the vacuities of the oxidating crusts, that we find the granular or massive gold formed, by the process of crystallisation which is constantly going on in all moist rocks.

In the *hard compact* crystalline rocks, in depth the gold is never found in grains; it is only detected in a very minute or aqueous state of saturation by analysis, or by very fine grinding and most careful washing; but after the change of the quartzose crystalline into the clay-slate or silicate of alumina, the gold becomes granular, and is deposited in flakes, crystals, &c., in the cleavage and fractures of the rocks. In Gongo Soco the gold is found in the jacotinga formation (ferruginous clay-slate), in some parts sufficiently rich to quarry the rock to obtain the gold disseminated therein. The same has been observed at Morro Velho. The clay-slate in which the lode is formed is often found to contain from 1 to 1½ oits. of gold per ton, and where this rock is fractured, rich veins of gold are necessarily formed. When these rocks decompose they supply the valleys with gold sands. The stanniferous granites of Cornwall present similar instances; the oxide of tin forms frequently a component part of the granitic masses, and when such rocks decompose, they necessarily cause rich deposits of tin in the bordering ravines.

The largest proportion of gold is obtained from rivers and superficial deposits in granitic districts; the quantity extracted from veins is comparatively small, less pure, and depreciating in quality and amount at moderate depths. Gold is always found in its metallic state, almost pure in alluvial deposits, but more or less alloyed, when found in veins with minerals. There are no *ores* of gold, as often very improperly stated. This metal is never found mineralised in nature, but enclosed commonly in iron pyrites, and frequently alloyed with other *metals*. The gold-producing rocks are not confined to particular geographical zones, as formerly supposed, but are found protruding more or less in meridional bands in all countries where the primary series is visible.

All the ferruginous and friable granites, containing yellow mica and pale yellow quartz, which are subject to disintegrate into spherical masses, produce gold in grains during the change. The auriferous granites bordering the Pacific Ocean, as well as those situate in the interior of the Americas, which I have minutely examined, show this effect in a very striking manner. The internal crystalline character of the auriferous granites changes as it approaches the surface by an a most imperceptible gradation into a kind of globular structure, like a coarse conglomerate.

In depth we find the usual crystalline aggregation of quartz, felspar, mica, and sometimes hornblende, confusedly mixed; a specimen broken from which, ground to fine powder, will show a trace of gold in an impalpable state, but so light as to render it impossible to detect any appreciable quantity by the mechanical operation of washing. But, as we ascend, we find the crystalline aggregation passing, by an insensible gradation, into a spherical structure; the respective nucleus of each centre of attraction becomes denser and harder than the parent rock by the concentration of the surrounding silica, like the formation of flints in chalk. Each nucleus becomes enveloped by a series of concentric envelopes, which enclose (as this structural change approaches towards the surface of the rock) an efflorescence of ferruginous mineral, containing gold in grains. These grey compact siliceous centres are called by the native gold-washers in South America the "madres," or mother of the gold, as without these rounded nodules they seldom find sufficient gold in the debris to make it worthy of the labour of washing. The gold, as already noted, is in such a minute state of dissemination in the uniform crystalline base, as to make it almost difficult to detect the mere trace of it; but in the oxidated and decomposed crust the metals become aggregated to different centres, and form into grains, easily caught by the ordinary washing process.

[*To be continued in next week's Mining Journal.*]

## ON THE CAUSES OF THE CHANGES OF CLIMATE AT DIFFERENT GEOLOGICAL PERIODS.

BY W. HOPKINS, ESQ., PRES. G.S.

In an elaborate paper, read before the Geological Society, the author first considers the influence on the earth's superficial temperature, of a *central heat*, supposed to be the remains of a former and very much greater heat which has been gradually diminishing during some indefinite period of time. The effect on the superficial temperature, due to this cause, may have been formerly of any amount, but is now reduced to within 1-20th of a degree of Fahrenheit of that ultimate limit to which it would be reduced in an indefinite period of time, supposing the external conditions under which the earth is now placed, such as the amount of radiation from the sun and stars, and the state of the atmosphere, to remain as at present. Poisson has calculated that it would require 100,000 millions of years to reduce the present temperature by about 1-40th of a degree of Fahrenheit. It is probable, therefore, that many millions of years must have elapsed since the central heat can have elevated the earth's superficial temperature by a single degree. The author also explained that any very sensible increase of superficial temperature from this cause must have been attended with an exceedingly rapid rate of increase of the internal temperature in descending below the earth's surface. It is only, however, to the more remote geological periods that we can refer for any very sensible change in the climatal conditions of our globe due to this cause. Such changes, also, must manifestly be continually from a higher to a lower temperature; and, therefore, we must appeal to some other cause to account for such oscillations of temperature as those of the glacial period. Poisson suggested that the present internal temperature of our globe might not be due to its primitive heat, but to the fact of the solar system having passed through some region of stellar space, of which the temperature, owing to stellar radiation, is much greater than that in which it is now placed. Without professing to say how far this cause may have influenced the climatal conditions of the earth at former remote periods, the author shows that—reasoning from all we know respecting the relative position of the stars, and the probable motion of the solar system—this cause cannot have produced a change so great as that which must have taken place during the glacial epoch, at a time so recent as we have reason to believe that epoch to have been. The author next proceeds to examine the effects of changes in the disposition of land and sea, and the consequent changes in the direction of ocean-currents. The map of isothermal lines, recently published by MM. Humboldt and Dove, enables us to estimate the influence of the existing configuration of land and sea, and that of currents superinduced thereby, and thus we are enabled to estimate approximately the effects of like causes in different hypothetive cases. The isothermal lines have thus been constructed by the author for the following cases:—1. When the progress of the gulf stream into the north sea is supposed to be intercepted by land, connecting the northern point of Scotland with Ireland, and that island with the continent of Greenland.—2. The next case assumes the elevation of the land, now constituting Western Europe, to a sufficient height to produce such glaciers as those, the effects of which we recognise in that region as having been produced during the glacial period.—3. The northern portion of the Atlantic is supposed to be converted into dry land by the elevation of its bed.—4. In the last case, the absence of the gulf stream, with its influences upon the western coast of Europe, is assumed, together with the submergence beneath the sea of a large portion of northern and western Europe. In this part of his memoir the author restricts himself chiefly to the consideration of these cases, with the view of ascertaining how the cold of the glacial epoch can be best accounted for, together with its consequent glaciers of sufficient magnitude to produce the phenomena now so universally attributed to them. Having constructed the isothermal lines in any of the above cases for January and July, he deduces the mean annual temperature at any proposed place. He can then calculate the height at that place of an imaginary surface in the atmosphere, the temperature of which, at every point, is equal to 32° Fahr. This imaginary surface must, of course, meet the surface of the earth along a line for every point of which the mean annual temperature is that just-mentioned; and any line upon this imaginary surface (as that in which it intersects the surface of a mountain), is called "a line of 32° F." In estimating the height of this line, the author adopts the results given by Humboldt and others as to the decrease of temperature for an assigned increase of height in ascending from the earth's surface. The next step is to ascertain the position of the snow line with reference to the line of 32°. In the tropical regions the former line is below the latter; in the higher latitudes it is generally above it. Wherever the difference between the summer and winter temperature is small, the snow line has a comparatively low position with respect to the line of 32°. By means of these and other inferences, drawn from existing cases, we are able to estimate approximately the relative positions of these two lines in our hypothetical cases, and thus, knowing by calculation the height of the line of 32° at any proposed place, we can estimate that of the snow line at the same place. Now it appears by observation that nearly all the well-known glaciers, of sufficient magnitude to be considered of the first order, descend about 4000 or 5000 feet below the snow line, and that the smaller glaciers descend only to smaller distances below that line. We are thus enabled, in any hypothetical case, to form an approximate estimate of the distance which a glacier would probably descend beneath its snow line; or, knowing the height of that line by the means above stated, we can thus estimate the height above the sea level to which the lower extremity of the glacier would probably descend.

The author then proceeds to apply these principles to cases 2, 3, and 4, above mentioned, and to determine the conditions under which glaciers, sufficiently large to produce certain observed glacial phenomena, would exist in western Europe. In case 2, it would be necessary that that region should be elevated into a mountainous range of not less than 10,000 feet in height—a conclusion which the author considers utterly inadmissable, on account of the entire absence of all independent geological evidence in support of it. The hypothesis of case 3, he rejects for a similar reason. Case 4 is then discussed at considerable length. It is shown that glaciers of the required magnitude would, in that case, exist in the region of western Europe, if, in addition to the absence of the gulf stream, we suppose the existence of a cold current from the north of a moderately refrigerating influence. This latter current, however, might not be essential. The entire diversion of the present gulf stream into some other channel, which is required by this view of the subject, would be the necessary consequence of that submersion of the North American continent of which we have had conclusive evidences during the glacial period; for in such case the current which sets into the Gulf of Mexico would manifestly continue in its north-westerly direction along the present valley of the Mississippi and the range of the Rocky Mountains, to discharge itself into the Atlantic Ocean. This would correspond to the glacial period on this side the Atlantic; but along the new course of the gulf stream there would be a much warmer climate than at present, and that such a climate has there existed at a recent geological epoch seems to be abundantly proved by vegetable remains which have been found between Hudson's Bay and the Rocky Mountains, precisely in the line which the warmer current would take. Before the depression of the North American continent was sufficient to admit the gulf stream to flow freely to the Arctic Ocean, the northern part of that continent would be converted into an Arctic sea, and this would correspond to the first part of the glacial drift period in that region. On the gradual elevation of the land after its greatest depression, the north-western course of the gulf-stream would be again arrested, and the northern portion of the American continent would be again converted into an Arctic sea. The temperature of the region of the eastern portion of North America would probably not be much affected by the alteration in the course of the gulf stream, nor would it probably be very different from that which obtains at present along its eastern coasts. It may also be added, that the continued course of the gulf stream into the Artic Ocean would very probably generate a cold counter-current from the North Sea across the submerged portion of Europe, such as has been above alluded to. The author is anxious to direct the attention of geologists to this view of the subject, in the hope that it may be tested by such further observations as may bear more immediately upon it. It appears to him to satisfy better than any other theory the present known conditions of the great problem which the glacial epoch presents to us.

DISCOVERY OF IRONSTONE IN NORTHAMPTONSHIRE.—A good deal of excitement has recently been evinced in the neighbourhood of Northampton and other parts of the county in consequence of numerous visits by agents of the Staffordshire ironmasters for the inspection of beds and open quarries of ironstone recently discovered to be of considerable value. These beds are supposed to extend in a belt running from north-west to south-east across the county, which is generally in the lower oolite formation. The existence of ironstone in the locality has long been known, but the distance from coal and the cost of transit has hitherto prevented any examination as to its value. It is associated with sands and ochre, and produces from 36 to 50 per cent. of iron. The county being now opened out by railways, this valuable natural product will be made available, and either conveyed to the Staffordshire furnaces, or coal brought into Northamptonshire to smelt the ore on the spot. In either case it must prove a source of wealth to the country, and employment to the people.

THE ELECTRIC TELEGRAPH COMPANY.—Some important improvements in insulation are, we believe, being now carried out upon one of the principal telegraphic lines by a gentleman connected with the above company. The company's lines, however, have lately been in excellent working order, giving strong indications through great distances, and under very unfavourable circumstances of weather. The atmosphere could scarcely have been worse than it has been during the last few days, and yet we believe the communications have not once been interrupted. A very superior description of telegraphic instrument, upon an entirely new principle, has recently been invented, and it is not improbable that it will be generally adopted throughout the lines of the above company. Further improvements are in progress in the same quarter.

ELECTRO-MAGNETISM AS A MOTIVE-POWER.—Professor Page, of New York, in prosecuting his researches as to the capabilities of electro-magnetism as a motive-power, has succeeded in producing a machine, said to be even more effective than Hjorth's—certainly the most ingenious electric-propeller yet produced in Europe. A patent has been secured in England by Mr. J. J. Greenhough for the inventor. The great objection to all the arrangements hitherto made has been the time required for the magnet to part with its induced current, and this secondary current always acting in a contrary direction to the one required. To remedy these defects, Professor Page came to the conclusion that it was necessary to make the secondary magnetic current act always in the same direction with the object to be moved. He, therefore, adopted the principle of hollow electro-magnetic coils, using a number of them in juxta position; they are formed of square copper wire, wound round a mandril, which when withdrawn forms a cylinder made up of sections, with about 1500 yards of wire to each. They are all connected metallically, but are so arranged with the cut-off, or slide, that but three coils are charged at once, and one coil is being continually cut off behind the piston, as the current is applied to a fresh one in front, in the direction in which the piston is moving. This is the peculiar feature of the engine: it is a continuous electro-magnetic draught, aided by the secondary current pulling in the same direction. The magnet is a round mass of iron, placed free to move in the centre of the coils, and forming the piston. This, in Page's engine, is 520 lbs. weight, and is connected to a double crank by a piston-rod in the usual way, with fly-wheel, pullies, drum, &c., to give motion to any kind of machinery. Attached to one side of the piston is an arm which works the cut-off slides, and the wires from the batteries are so arranged with the slides and stroke changer, as to keep up the continuous transposition of the current and reverse the order when the stroke changes to up or down. There is also an arrangement by which the stroke can be regulated to any depth of crank.

*(From a Correspondent).*—Experiments have just been made on the Paris and Lyons Railway for the application of electro-magnetism to locomotives. The apparatus prepared for the purpose was applied to an exceedingly large locomotive, and succeeded perfectly, first on a level, and then on an ascent of 13 millimetres, the steepest, in fact, of the line. It was feared that difficulties would arise from the smoothness of the wheels on the rails, but no inconvenience was perceptible from that circumstance.

MINING MATERIALS—CONTRACT.—In our Journal, in December month, an advertisement appeared for the supply of sundry materials, by public tender, to East Wheal Russell and eleven other mines, in the neighbourhood of Tavistock, Plympton, and Calstock. We are now enabled to report that the supply of timber has been taken by Messrs. Bayly and Fox, of Plymouth; Messrs. Distin and Chafe, of Devonport, that of nails, oil, steel, and lead stores, and that of bar iron to Boringdon Park and East Boringdon; Messrs. Coath and Son, of Plymouth, for cordage; Mrs. Merrifield and Mr. Clemo, of Tavistock, for candles and tallow; the Tavistock Iron Company for manufactured iron; Messrs. Gill and Co. for bar iron to 10 of the mines, and timber for Lydford Consols. Similar arrangements are making for the supply of powder, safety fuse, and other articles; the contract for coals is not taken at present. From the respectability of the contracting parties, there is little doubt but this arrangement will prove satisfactory on all sides; it excites competition, whereby a fair price is likely to be the result, giving the merchant shareholder, at the same time, the opportunity of competing. The *quality* of the article, however, should be most strictly looked to, for the best articles to miners prove the cheapest in the end.

MINING COMPANY OF IRELAND.—In our last Journal we inserted the directors' report for the half-year ended 30th November last, but confined space prevented our going at length into the accounts. These appear to be highly satisfactory; the total paid-up capital at 7*l.* per share is 140,000*l.*; of this sum 30,491*l.* 13s. was expended in mines since abandoned and surrendered, the cost of mines now in operation, farms, houses, &c., is 111,389*l.* 4s. 6d., and the cost of explorations in the past six months has been 316*l.* 11s. 7d. On the general operations there has been realised as profit 184,278*l.* 14s. 9d., from which dividends have been paid amounting to 150,500*l.*, adding 35,208*l.* 1s. 1d. to the capital account, making it 175,208*l.* 1s. 1d. The absolute assets of the company are, securities on the Audley estate bearing 5 per cent. interest, 14,677*l.* 1s. 3d.; good debts, 4892*l.* 12s. 10d.; advances for labour and various purposes, 1523*l.* 18s. 8d.; mine materials on hand, 1131*l.* 14s. 1d.; mineral produce on hand, 22,452*l.* 15s. 5d.; cash balance, 219*l.* 8s. 8d.=44,897*l.* 10s. 11d. The total liabilities are 11,886. 18s. 11d.: leaving balance in favour of the company of 33,010*l.* 12s. The profit in the last six months accounts was 1429*l.* 6s. 4d. This state of affairs shows a steady improvement from the difficulties which had resulted from the famine and poverty of the country; the reduction of the poor's rate has been generally advantageous, and by a recent Act of Parliament they have been enabled to make much more satisfactory arrangements as to royalties than heretofore. Upon the whole, the affairs of the company were never in a more flourishing condition, and are calculated to inspire confidence among the proprietors.

TEMPLELYNE MINING COMPANY.—Some mineral discoveries having been made in the lands of Templelyne, in the county of Wicklow, Wentworth Erck, Esq., the proprietor, proposes to grant to a company to be formed a lease of a sett of 80 or 100 acres for 40 years, at a royalty of 1-18th, and, if successful, the right of search over 5000 acres. The capital of the company to be 10,000*l.*, in 5000 shares of 2*l.* each, of which number Mr. Erck is willing to take 500. The company to be formed under Deed of Settlement, and registered in conformity with the provisions 7 and 8 Vic., chap. 110, which deed will contain the usual clauses for working the mine in the most economical and effectual manner. A deposit of 1s. per share is required to be paid within one week after application for shares, to defray the preliminary expenses of the company. Directors are to be chosen by the shareholders, and a managing director appointed, who is to be a sound practical miner.

BOSCASWELL DOWNS MINE (St. Just, Penwith, Cornwall).—A 28-in. cylinder engine was erected on this ancient mine in the year 1827, the principal proprietor at the time being James Halse, Esq., M.P. for St. Ives. The capital expended in machinery, and the usual necessary outfit consequent on the setting of an old mine to work, amounted to 1600*l.* The mine was a bagatelle concern for some years, but by the end of 1836 the profits amounted to 22,000*l.* Shortly after this time it became almost totally unproductive, a circumstance which caused much alarm, and the result was that several of the adventurers relinquished their interest, and the company was dissolved. Another company of adventurers was again soon formed, under the auspices of the same enterprising principal, and a sum of 1200*l.* only was expended in remodelling the machinery and restoring a wretchedly dilapidated and neglected mine, and bringing it into a profitable state. In the year 1850, the mine, through poverty, again fell into disrepute; and, previous to that date, there were occasional signs of a want of confidence amongst the adventurers, notwithstanding that by this time a sum far exceeding that to the end of the year 1836 had been pocketed by them. The condition of the mine of late has again very considerably improved, principally from discoveries recently made on a new south lode. The present returns exceed the expenditure by 150*l.* per month, and bid fair to considerably increase shortly.

WEST WHEAL ABRAHAM, situate between Lewis Mines and West Treasury, is about to be worked by a spirited company—John Roscorla, Esq., of Penzance, the purser. The sett is very extensive, and contains elvan, tin, and copper lodes of great promise. I have seen specimens of the tin and copper, which is of very good quality. The position of the ground is such as to justify sanguine expectations of successful results; West Treasury on the east and Lewis on the west being good mines—the lodes of which mines intersect West Wheal Abraham.

GREAT BRYN CONSOLS.—The tradesmen and others connected with this adventure, in consequence of the success attending the works, gave a good substantial dinner to the workmen employed, at Mrs. Stick's, Victoria Inn, Bodmin. After dinner, the miners were addressed by Capt. Webb, jun., the agent, Capt. Kernick, and others, who all agreed that there was every prospect of the mine becoming profitable and permanent. The men departed highly pleased declaring that their best exertions should be used to advance the undertaking.

JELLETTITE, A NEW MINERAL.—Professor Jellett having discovered in Switzerland a mineral specimen, which he considered had never been described, on his return submitted it to Dr. Apjohn, Professor of Mineralogy in the University of Dublin, who agreed with him that it was new. It was, therefore, submitted to careful analysis, and the following are its general characteristics. It occurs as a partial incrustation of a dull greenish yellow colour, found on the surface of an indurated talc schist, containing brown garnets and a little asbestos. It is compact in fracture, but really composed of numerous aggregated prisms, the rhombic bases of which have angles at 60° and 120°. It is above 7° of hardness between quartz and topaz, easily scratching the former—specific gravity, 3·741. Heated in the inner flame of the blow-pipe alone, it acquires a dark colour, slags, and is then strongly attracted by the magnet. When in fine powder it is acted on by muriatic acid, but does not gelatinize. The acid takes up lime and iron, leaving an impure silex, so that the decomposition is not complete. A small portion on analysis gave—Silex, 7·39; peroxide of iron, 6·53; lime, 5·76=19·61.

# Original Correspondence.

## THE COST-BOOK—ECONOMY IN MINING.

SIR,—Six weeks' absence having deprived me of my usual perusal of the *Mining Journal*, on my return I obtained the four last Numbers, and this morning took up that of the 13th Dec., containing the letters of "Jurisconsultus" and "Argus," of Truro. "Jurisconsultus" I have not the honour of knowing, but may say his strictures on my communication of the 29th Nov. are ungenerous and inapplicable. If he will trouble himself to refer to the article, he will find he is under a perfect mistake, as I neither entered into controversy with him, nor intended to subject myself to its disagreeables from parties wanting good temper, patience, and liberality. I merely stated the diversity of opinion as to the intention of the 63d section of the 7 and 8 Vic.; and the effect of the Joint-Stock Registration Act, and then suggested the expediency of promptly obtaining one well-defined and efficient Act, applicable to every district, and all mines throughout the United Kingdom, and securing the individual shareholder against responsibilities beyond his declared amount of subscriptions. "Jurisconsultus" is bold enough to assert that I took my notion of the *commandité* principle from the report of the Commission on the Law of Partnership. It so happens, that through absence I have been deprived of either seeing or hearing of such a report. Had "Jurisconsultus" sojourned in Paris for one, two, three, or four months, and upwards at a stretch, and visited France year after year previous to such commission and its subsequent report, it is more than probable that he also would have known something of the *commandité* principle. I may here observe, that he is under similar error in stating that I have entered into controversy with him, as I had neither then nor have I yet seen what he has written. "Jurisconsultus" also complains of the variegated scientific topics of my communication, and says he is not yet out of temper with steam or coal, nor impressed with the economy of electro-galvanic power. Neither am I, but perhaps "Jurisconsultus" has given no more consideration to the progressing phases of these matters than he did ten years since to the application and practical bearing of the electric telegraph. He might have had the good nature to consider my suggestions, as written with a desire of inducing timely preparation for the coming changes which really have already thrown out their foreboding shadows.

"Argus," of Truro, I know not, nor can I even guess who that gentleman is. I have often been pleased with his right-minded remarks, and most certainly had no intent to cause pain or umbrage. He is quite right in believing that I would not willingly or unnecessarily wound or offend any one. It appears we have met, and have differed in opinion, and that I was or have been proved wrong. Well, I hope it was a good-humoured difference, and that in the same spirit he will, in the present instance, allow me to differ with him, and, in my own way, spin a yarn, without exciting pain or offence to him, or any other individual. I cannot at the moment, but will take an early acceptance of his challenge, to point the way by which "the practical mine captains" might and ought, long since, and even yet can, open and work our mines with a saving of not merely 30 per cent., but probably upwards of 50 per cent. of the present opening and working expenditure. In showing the means of these economies, it will be impossible to avoid some indirect individual allusion, and a certain degree of reproach to the collective body of our mine captains; but as this will be for a general and public good, and with no unkind feeling or ill-will to any one, I hope to be spared the annoyance and persecution received by the chagrin and envy of the truths published in the mining pamphlet (1834), which "Argus" alludes to. He appears to forget that it was hastily written, and only a limited number of copies printed for private circulation, that there were more than three times the number applied for, and that it effected additional enterprise as well as caution to many.

My intermediate visits to the Derby, Westmoreland, Cumberland, and other northern districts, to some of Ireland, North as well as South Wales, and to many of the parishes in North and South Devon, as well as every parish in Cornwall, have shown me that, notwithstanding the energies of such men as our former respected Davys, Morcoms, Francises, &c., and the activity of the present Prichards, Puckeys, Vivians, and a few others, there is still much to be altered and improved. There is no question that most of the mine captains are good and clever men in some of the various departments of their calling, but yet four-fifths of them are wanting in proper practical and other requisites: even the *Mining Journal* goes very far in proof of this. Look at the former mismanagement, unnecessary expenditure, loss and waste in Cook's Kitchen Mine. This is not a solitary instance in that neighbourhood. Look at the loss, expense, and delay by the erroneous dialling in the Callington Mines—with a too frequent occurrence in other mines, which escape notice. Look at the weekly report of one mine in the same paper, clearly indicating the captain to be deficient in experience for his duty, throwing away the shareholders' money, and "paddling" here and there to no effect. Look in the same column at the report of another mine, where the captain shows his injudicious mode of working, and that he is wasting the shareholders' money in premature and ineffective cross-cuts.

As I have before said, there are great exceptions, but "Argus" and others must admit that suggestion is of little or no use, and that advice or precept is reluctantly carried out by the great bulk of "the practicals," whose prejudice and self-confidence, instead of devising improvements or helping suggestions, invent all sorts of difficulty and opposition to innovations not suggested by themselves. To the Cornish engineers and some shareholders it is we are indebted for nearly the whole of the more recent economies of our present improved, but, as yet, imperfect, and greatly needless expensive mining.

When I have given my suggestions for practical economies, I hope to have the concurrence of such men as "Argus," in helping the adoption of the mode by which, I think, they may be gradually introduced, and then mining will make greater profit from copper at 70*l.* per ton than now with the present standard. "Argus" says, I have "a glorious opportunity," &c. He forgets that in the year 1823 I suggested the foundation of a miners' school. Again, in 1835, and since then the establishing "The Miners' Laboratory" and rewards to miners and others for improvements and economy in any of the underground labour operations, whether by tools or processes, and in surface operations by machinery, implements, arrangements, and processes for breaking the ground, and for dressing and mechanically or chemically separating and saving the produce of the combined mineral in the best marketable state.

*London, Jan.* 6. GEORGE ABBOTT.

## THE GREAT BRYN MINE.

SIR,—Your correspondent, "An Enquirer," asks how, by an analysis, I am able to determine the value of a mine. The answer is obvious: as he or any other person would estimate the worth of any commercial article by sample, regard being, of course, first paid to preliminaries, which, in this instance were the high moral standing of the parties who furnished the ores for examination, and the reports, professional and otherwise, current at the time, conjoined to the circumstances that the selection of specimens was left entirely to myself, and that, from a great variety presented, I took such as would be considered, in commercial parlance, "fair samples," comprising six indications, from the gossan down to the last lode explored, the analysis of the last being that published in my report, as representing the existing condition of the mine.

That I was justified in the expression of an unqualified opinion of the value of this property may be gathered from the following reports of a few of the engineers and captains who have inspected the Great Bryn:—"I consider," says Capt. Kernick, "the mine with its many lodes of tin and copper, and other rare local advantages, a very promising undertaking." Capt. J. Warrick says, "it is my opinion that by driving deep adit levels to intersect all the lodes, and erecting a 50-inch cylinder steam-engine, the Great Bryn will make a good, lasting, and dividend-paying mine:" whilst the ensuing ones, highly concurrent of these anticipations, have been very recently supplied. Capts. Kernick and Hoskin, after a careful inspection, thus write, "We consider this sett a very valuable property, and confidently give our opinion that, by care and attention, it will make a profitable and lasting mine." Subsequently it is announced that "We have intersected a tin lode in the deep adit, we take it to be worth 6 cwts. of tin per 100 sacks; and again, "We have cut through the tin lode, and find it 3 ft. thick—a great portion of the footwall is nearly solid tin." The portion of ore of which my analysis was published appeared to have been obtained from this lode. This is the best discovery that has been opened on in this part of the country for many years. It is estimated this discovery enriches the mine 70,000*l.* sterling, above the adit level.

Regarding my investigations as merely confirmatory of other and most conclusive indications, I felt at liberty to exercise the prerogative of subjoining the only inference to which such, to the proprietary, gratifying results could possibly lead. Had even the film of a doubt existed in my mind of the value of this adventure, I should have exhibited the requisite verbal modifications.

*Strand, Jan.* 12. W. WHITE.

## NATURE'S LAWS.

"SIR,—A few months ago, Mr. Ennor promised your readers a treatise on the laws of Nature in the formation of mineral veins, &c. Since that time he has written several letters on the subject; and I now write to inquire whether we are to regard those letters as constituting the promised treatise, or whether they must be regarded as merely forming the introduction to it? The letters are of a mixed kind, embodying a variety of matter, so that I am at a loss to know how to regard them with reference to the subject of Nature's laws. Mr. Ennor will oblige by giving me an answer to my question, and by informing me whether his treatise is to appear in a book or pamphlet form? It would be much better to have the whole work in a more connected form than in letters distributed over a lengthened period in the *Mining Journal*. If, however, the Journal is to be the only medium of publication, would it not be well to publish the whole in one Number, or in a supplement to a Number of that valuable periodical? But if a volume is to issue, please say the probable size and price; and when it is likely to appear? I wish to be taught all that Mr. Ennor knows of Nature's laws, and, therefore, am impatient to possess so valuable a work.—*Truro, Jan.* 6. JOHN BULL.

## CALLINGTON MINES, AND THE KELLY BRAY LODE.

SIR,—It is now discovered that this productive lode, producing 3½ tons to the fathom, is in the Wheal Tonkin sett, and the Callington party are either working in that sett, or very near its borders. Surely this is a great mistake, and shows the necessity of all mining companies procuring correct plans. The shaft at Kelly Bray is only a few fathoms from the Wheal Tonkin sett, and the lode dipping directly towards that ground. Surely such another instance was never heard of.—A LOOKER-ON: *Callington, Jan.* 12.

## ANGLO-CALIFORNIAN GOLD MINING COMPANY.

It must have been a source of deep gratification to the directors of this company to find that, after the calumny and obloquy with which they have been assailed, and the distrust to which they were exposed from a number of their constituents, they have achieved so great a triumph, so complete a discomfiture of their assailants, as was shown at the extraordinary meeting held on Wednesday, at the Freemason's Tavern. It had, we believe, been generally anticipated that the meeting would have been of a stormy nature, and considerable opposition was expected on the part of the country shareholders towards any proposal emanating from the directors. Placards on boards, evidently got up by an adverse party, were paraded in the street for some considerable time previous to and during the time the meeting was held. An able report of the proceedings of the directors, detailing their operations for the formation of the company, was put before the meeting, and from this it was clearly shown that great difficulty had to be encountered in consequence of the misconduct of Mr. Luke Williams, which had occasioned deep anxiety to the directors, and considerable expense to the shareholders. Machinery had been sent out, and an able mining engineer, Capt. Davies, had likewise been engaged, and proper arrangements were made for effectually carrying on the operations of the company. A large powerful engine of 30-horse power, to work 12 stamps, would be shipped in the course of five weeks, and which, when in full operation, would be capable of pulverizing at least 150 tons of quartz per day. The accounts would be presented at the ordinary meeting in October next, when it was anticipated that a satisfactory dividend would be declared. A vote of 2000 free shares each was passed as a slight testimonial of the energy, industry, and ability which the directors had shown in placing the company in its present prominent and influential position. A sum of 1200*l.* was set aside for the future remuneration of the directors, as well as the travelling expenses of the provincial directors; and the dividends of 2500 shares were allotted as an extra remuneration to the officers in California for good conduct, power being given to the directors to transfer not more than one-half of them to the absolute use of Sir Henry Vere Huntley, in case of his leaving the service of the company with their approbation.

Such are the principal features of the report and the business transacted at the meeting. An unseemly interference was attempted on the part of a person styling himself an attorney, of the name of Hope, who surreptitiously obtained admittance, we are informed, as one of our reporters; it subsequently appeared that he had been sent there by Mr. Luke Williams, in order to hear what was said respecting his proceedings. Though not allowed to speak, one of the directors, Mr. Massey Dawson, requested that he might be allowed to remain, in order to hear the charges which were to be alleged against his client.

Without entering into particulars, which are now patent to the public, the general body of the meeting seemed to be of opinion that a prosecution against "the individual" would be useless—they not considering him worth powder and shot, although a power was wisely lodged in the hands of the directors to take such steps, should they deem it necessary. As it was, he was left to the contempt which his conduct deserves. Disclosures were made, showing indubitably that great concealments, malversations, and practices of a nature which could be stigmatised as fraudulent, were resorted to; and it was from this abyss of gloom, doubt, discredit, and distrust that the directors had to rescue the company.

As usual, on the eve of the meeting, a very scurrilous pamphlet was issued; but with the consistency which so eminently distinguishes the author, it repudiated its elder brother, and advocated the necessity of the shareholders signing the deed, which he has previously cautioned them against. As a fair rule, those who refused to share the dangers have no right now to reap the benefit, and, in our opinion, the directors have shown too great a liberality in allowing those who deserted them when alone, now to have the option of joining a prosperous and flourishing concern. They have, however, probably acted for the best, considering it but an act of justice to those who were prevented by untoward events and sinister machinations from taking their fair share in the then heavy responsibilities of the company. We heartily congratulate the directors on the success which they have obtained, and strenuously and arduously have they exerted themselves to attain the desired end. This we can tell the shareholders from our own knowledge.

We have attentively watched the company through its chequered career and varied phases. Two years since, from circumstances which have been fully chronicled, and which it is not necessary to dilate upon here, it was in worse than "bad odour"—in fact, to use an old phrase, it was "offensive to the nostrils." Let the shareholders contrast their present position with the increased value of their property, and consider what it was before the present directors took the management in their hands; and their own good sense and candour, as Englishmen, will tell them to whose indefatigable exertions and untiring endeavours they are indebted for their present prosperity.

THE CALIFORNIAN GOLD REGION.—Mr. John Roberts, a Cornish miner, in a letter to his brother, Mr. T. Roberts, of Camborne, furnishes the following interesting particulars:—"Gold seems to be the object of all; talk with whomsoever I may on the motives which brought them to California, there is the same answer from one and all—that is, to get a pile of gold, and return to their families and friends in better circumstances than when they were in before they left their homes. Men in this country attend to their own business, and let others alone, more than in any country I have seen. Every one is digging and working like so many men fighting for prizes. I never worked so hard in my life as I have since I have been in this country. For the first nine weeks after I arrived, all I made over my expenses was $7 (the American dollar is about 4s. 2d.); then my partner and myself went into another speculation: we bought two mules, two carts, with the privilege of a stream of water to wash with, and a 'long Tom,' for $700. Six weeks have elapsed since we entered into that business, in which time I have cleared $300 after all expenses have been paid, and the claim we have been working on looks just the same as before. I think this is the best country for making money under the sun, and as far as I have seen and experienced, it is very healthy; we very seldom hear of any one being sick. The climate seems to be adapted to every constitution, for there are people here from every nation under heaven. It is surprising to see what multitudes of people have found their way to this golden country in so short a time after it was explored. It is also surprising to see how the surface of the ground is dug over for gold; there is not a river, or valley, or ravine, that has not been explored and worked over where there was any gold, and most of the men who are mining are working it over the second and third time, and make from $5 to $8 per day. The place where I am working is on the side of a hill; we take away from 1 to 2 feet in depth of the surface of the ground (just like the farmers carry away a stope of Camborne town earth for dressing their land), and wash it in a 'long Tom,' for that is the name it has here, but it is nothing but a washing strake such as we use in the lead mines of Wisconsin, with a sieve at the end of it, under which is fixed a box called the rifle-box, set in a diagonal position. It is about about 4 ft. long and 2 ft wide, and 4 inches deep; on the inside of the rifle-box there are placed two bars, about 2 inches high, across the bottom, called the rifle-bars, which catch all the gold, and the poor stuff washes over them. This is all the machinery necessary for washing gold; the cost of it is from $25 to $50, depending on the quality and size. There are many rich lodes found here, which are generally called quartz veins, and out of some of them they take many thousand dollars' worth of gold per day; were it not for these quartz veins, I should have but a very slight opinion of the country. I intend to speculate a little on them myself next winter. If any man strikes a rich vein his fortune is secure. There is one close by where we are working; we frequently find pieces of gold and quartz mixed together, which proves evidently enough that it must have come from the vein above us. It is only two days ago we found a piece weighing $18, and the party working adjoining our claim found a piece weighing $64, in which there were $43 of gold; the whole piece was not larger than a small hen's egg." The letter is dated from Shone Flats, near Sonora, to reach which district from England will cost 60*l.*, and occupy about two months.

NASMYTH'S PILE-DRIVING MACHINE.—This machine, which has been invented to supersede the old method of driving piles, was first brought into operation in London on Saturday. The works, under the superintendence of Mr. Rendel, the engineer, are at the West India Docks, and a pile of 25 ft. in length was driven into the ground in the short space of eight minutes, an undertaking which by the old process would have occupied three hours. The engine is capable of making from 60 to 70 strokes a minute.

THE GARTH WORKS, MAESTEG.—These works, which some months ago started under apparently favourable auspices, are again, we regret to state, at a stand-still, and now present, as contrasted with "the light of other days," a most gloomy and altogether cheerless aspect. A dispute has arisen, it is said, between the proprietors of the Royal British Bank and other parties interested, which may furnish eventually fresh evidence, if any were wanting, of the "glorious uncertainty of the law."—*Swansea Herald.*

HOLLOWAY'S PILLS for the CURE of DEBILITY, BILE, LIVER and STOMACH COMPLAINTS.—This inappreciable medicine is so well known throughout every part of the civilised world, and the cures that are daily performed by its use are so wonderful, that it now stands pre-eminent above all other remedies, more particularly for the cure of bilious and liver complaints, disorders of the stomach, dropsy, and debilitated constitutions. In these diseases the beneficial effects of this admirable remedy are so permanent that the whole system is renovated, the organs of digestion strengthened, and a free respiration promoted; therefore, sufferers should have recourse to it to ensure a safe and certain cure.—Sold by all vendors of medicine, and at Professor Holloway's establishment, 244, Strand, London.

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# Mining Correspondence.

## FOREIGN MINES.

ALTEN MINING ASSOCIATION.—Estimated produce for November:—

| Mines. | Tons of Ore. | Per Cent. | Fine Copper. |
|---|---|---|---|
| Raipas | 25 | 6 | 1·500 |
| United Mines | 15 | 5 | ·750 |
| Old Mine | 140 | 5 | 7·000 |
| Carl Johan's | 2 | 7 | ·140 |
| Total | *Tons* 182 | | 9·390 |

*Mining Report from 24th Nov. to the 8th Dec.*

*Raipas.*—The winze in the 20, on Labouchere's lode is still very promising, and yields fair returns of good ore, with highly favourable prospects. A cross-cut has been set to drive from the 30 at Monk's shaft to cut this lode. Other workings as last reported.

*United Mines.*—The lode in the new level is more promising, and the tributers are producing some fair returns of ore, but the ground is hard and the progress slow. At Woodfall's the tributers are working on a small branch of ore above the adit level, where the prospects are very encouraging.

*Old Mine.*—The returns of ore are regular and remunerative, and we hope will prove better than the last month's delivery. In the north-east stope the quality of the ore is somewhat improved, but we are, unfortunately, still inconvenienced by the water. The stope in the perpendicular shaft is rather deteriorated.

*Carl Johan's.*—The lode is yielding fair returns. The workings prosecuted on tribute are at present remunerative.

*Powder House.*—The lode in the level has lately shown signs of improvement, and having passed through the mundic, we expect it will soon yield better returns of ore.

LINARES MINES.—The following has been received from Capt. Martyn:

*Pozo Ancho, Jan.* 3.—In giving my monthly report, I beg to inform you that our sump at San Anton winze, sinking below the 55 fm. level, is still in favourable ground for sinking, and the lode is become more regular and worth 1 ton of ore per fm., with a prospect of a speedy improvement. In the 55 fm. level, west of Wilson's shaft, the ground is favourable, and worth 1 ton of ore per fm. The stopes east, in the same level, are worth 2½ tons per fm., ground hard; and in the 45 fm. level, east of Shaw's shaft, the lode has improved during the present week, being now worth 2 tons of ore in a fm. The ends east and west of Shaw's shaft, in the 55 fm. level, are still in hard ground; the lode is large, and in places shows stones of lead, but not any to save; however, from the appearance of the stopes coming towards the western level, I expect a speedy improvement. The 45 fm. level west is in easy ground; we are at present driving on a caunter branch, worth 6 cwts. of ore per fm. Buena Ventura winze in the same level, east of San Juan shaft, is still a very good lode, worth 5 tons of ore per fm.; we have commenced another winze about 15 fms. to the west of this, and previously sunk 9 ft., water having prevented them from sinking; it is now quite dry, and ground favourable, worth ½ ton of ore in a fm.; but at present the ground is hard. There is a slight improvement in La Esperanza winze, being now worth 1½ ton in a fm. Thomas's shaft is progressing favourably, and still in the old workings; we are forcing in this with all dispatch, to effect a communication with the 31 fm. level, and then purpose driving a cross-cut on the north lode. I have examined the old workings made in the eastern part of the sett, and from the large extent of ground taken away on the back of the lode, we expect very good results from our eastern levels; consequently, we have commenced clearing away the rubbish for another shaft to the east of Thomas's shaft about 120 fms. Our tribute department, although not quite so good as in November month, is looking pretty well; we have 18 pitches working at an average tribute, including dressing of 1*l.* 11s. per ton. Our ore weighed in, and our present calculation of undressed ores, we think December ore will not amount to the previous one given. We calculate for Jan. about 220 tons.

Stock Account.—Lead ore weighed in to Jan. 3, 54 tons 19 cwts: total in stock, 350 tons 8 cwts.: Pig-lead smelted, 11 tons 12 cwts.: total in stock, 605 tons 4 cwts.

IMPERIAL BRAZILIAN MINING ASSOCIATION.—[Rec. Jan. 16.]

*Bananal, Nov.* 28.—I beg most sincerely to offer you my thanks for the confidence reposed in me, in the appointment of chief commissioner in this country; an honour I shall highly value, and endeavour, by my acts and deeds, to meet your approbation in discharge of the arduous duties which necessarily devolve upon me, and trust that that confidence which you have been pleased to bestow you will never have cause to regret. The power of attorney, instructions, and the different letters connected therewith, have been duly received, and shall have my strict attention. The captain's report, of July 28, intended to convey the opinion that, if in stoping the ground in the bottom of the 24 fm. level, the veins proved unproductive, they would not recommend the sinking of Gibson's shaft being resumed (it then being idle for want of surface power to drain the water), and, considered under all circumstances, this part of the mine would then have had all the trial it deserved. The stopes at that period had to be drained with a hand-pump, but, at present, another means of working is adopted, by bringing in a succession of stopes from the shaft, thereby dispensing with the use of the pump, and is the only method by which this piece of ground can be taken away. Our produce here is exceedingly small: and, although we have had frequent showers here during the past fortnight, it has not been sufficient to supply the stamps. By catching a certain portion of the water flowing from the stamps shin bed, and allowing it to settle, I found that it contained some exceedingly fine particles of gold, which is so light that I am afraid no simple method will prevent its going off; and, as to using an expensive process, it is altogether out of the question, the stuff being too poor and water scarce to warrant it. In hopes of catching some of the gold, I have ordered another shin bed to be fixed below the present one with a less declivity, for the dirty water containing the gold to pass over, being first mixed with a clear stream in its passage thereto. The rough sand which does not contain any, is separated by an opening in the bottom of a launder, and a piece of sheet-iron divides the stream about ¼ an inch from the bottom, and if this fail, I confess I know of no other cheap process. The cross cut and level on the lode, spoken of in the captain's report, have been driven, in consequence of some favourable information that I received from the former party that worked there; and to prove as quick as possible the correctness of their statements, it would require 12 months or more to stope away the ground on the lode to reach that point, whereas we shall now do it in little more than a month. By our next post we shall probably reach the places spoken of by them, and if I find nothing better than already discovered I shall recommend the stopping of this part of the property.

Gold report, from the 7th to the 27th Nov., 1851.

| | | | |
|---|---|---|---|
| Gongo | Lbs. | 9 8 9 | 0 |
| Bananal | | 3 4 2 | 0 |
| Total | | 13 0 11 | 0 |

*Maria Workings.*—Since the last despatch, cross-cuts have been extended from the second winze, spoken of therein, to both the walls of the formation, and which is of an immense size. The cross cut west has been poor throughout, but the one driven eastward has produced, now and then, some fair samples. We have since commenced the third winze further south, which is now 25 ft. deep; this place has yielded some good samples that will do very well for a stamps, and I earnestly hope that when we cross-cut, by and bye, its produce may be as good; if so, it will give me great encouragement, and will, probably, warrant the erection of more stamps. In fact, so far as our new explorations have gone, this (the Maria workings) is the only place I have any confidence in. We have been thrown back with our work a little, owing to the contractor disappointing us in bringing in the axles for the water-wheel, &c.; it is, however, now on the spot, and every exertion is being made to set the machinery in motion in the least possible time.

*Bananal.*—I have put men to cross-cut the jacotinga perpendicularly over the adit end at and under the surface, the cross-cut being in the side of a hill; and further north, in different places on the course of the jocotinga, a few particles of gold have been met with in some of the veins, but nothing worthy of notice. The ground is very favourable, and can be driven by some of our labourers, and I intend proving the whole space, if possible, between our present works and Morro des Almas in a similar manner. Gold is found a short distance below the surface, as well as at a greater depth, and if we are fortunate enough to meet with a shoot, I believe we shall be able to work down on it dry to within a short distance of the adit level, the water apparently being drained by the end now abandoned. The rain having set in about a fortnight since, we have been able to resume the stoping in the bottom of the 24 fm. level. We had a little coarse work from a small shoot therein, but I am sorry to say its appearances do not alter my previous opinion.

*Gongo Soco.*—I regret to inform you that our prospects here are not very cheering, and the produce for the last 10 days has been small, more especially that from Hochieder's, Joinville's, and the Gongo village stamps. The poverty of the two former, and also that of Walker's, is accounted for, to a certain extent, in Capt. Guy's report, by the rain washing down a portion of the sides of the open cutting, and mixing with the other jacotinga intended for the stamps. We have made a trial of quartz lode behind the Venda by stamping 216 tons at the Gongo stamps; it only produced 3 dwts., and is, therefore, quite valueless. In front of the Venda there is a large body of cascalho, where we are putting down trial pits in different places, to ascertain if there is any better stuff for supplying the last-named stamps than that which we are now stamping; if not, it will be useless to continue in the present way, and I shall be consulting best your interest by stopping her.

[The mine captain's report will be given in our next Journal.]

NATIONAL BRAZILIAN MINES.—[Received January 16.]

*Cocaes, Nov.* 16.—At the open cut on the Terra Caheda I have had 62 waggon loads of the lode put to the stamps for a sample, which produces better than any stone we have taken out of the mine for some time past. The lode at this point is from 12 to 16 feet thick, and can be taken away at a very little expense, particularly as there is not much blasting required.

*Nov.* 26.—Francisco Antonio says he expects he shall discover the lode to-morrow, and I hope we shall find it a rich one.—Produce for the month ending 26th Nov.—

| | | | | |
|---|---|---|---|---|
| Cocaes | Mks. | 3 | 3 6 | 2 |
| Cuiaba | | 4 | 3 1 | 64 |
| Total | Mks. | 7 | 6 7 | 66 |

ST. JOHN DEL REY MINES.—[Received January 16.]

*Morro Velho, Nov.* 8.—Produce for October—28,247 oitavas, equal to 271·26 lbs. troy—viz., 27,920 oits., from 6617·6 tons of stone, yielding 4·22 oits. per ton, and 327 oits. from arrastres=28,247 oitavas. We seem at length to have surmounted the difficulties which in the months of June, July, and August, tended so materially to diminish our produce. And as on the one hand we are now enabled to throw out very freely from the spalling floor the inferior ore, while on the other hand the rains which have already partially commenced will henceforth render important aid to our stamping operations, it is to be hoped we may maintain, if we do not even surpass, the produce now obtained. Stamps working during the month, average 115·53 heads. You will recollect that in my diary of the 11th and 24th, I detailed the causes of the whole of the stamps being stopped on these two occasions, the loss by two stoppages amounted to three quarters of a day. The supply of stone from the mine continues abundant, and has enabled us to reject from the spalling floors 608 tons of inferior stuff, and thereby raise the average standard to 4·22 oits per ton. The stopes going off from the sump shaft in the Bahu, where a few months back there was an extensive invasion of white quartz, there is now an evident improvement in the lode, affording well-founded hopes that that mass of quartz will gradually die away. During the last 12 months you have at different times been apprised of the direction of the lode in the Bahu, having been unexpectedly, though materially, altered towards the south: it now appears that the tendency of the lode to the south is even more decided than heretofore, and a new feature has within the last three weeks been given to the whole, by an accidental discovery that what had up to that moment been deemed the south wall of the mine was, in fact, only a thin skin of killas, showing on the other side of it a large mass of excellent lode, the depth or extent of which cannot, as yet, be even guessed at, but which may probably be destined to have a very important effect on our future mining operations in that quarter. In order the more conveniently to get at this additional lode, Capt. Treloar is now preparing, with the advice and under

## TABULAR AND STATISTICAL MATTER, WITH RETURNS OF METAL, ON DIVIDEND-PAYING MINES, FOR THE PAST YEAR—By William Henry Cubll, Esq.

### DEVONSHIRE AND CORNISH MINES.

| Nos. Shares | Amount Paid. | Name of Mine. | Market Price. | Dividend per sh. | Total Amount | Metal. | Parish. | Purser or Sec. | Address. | System. | Dividend Payable. | Copper. | Tin | Lead. | Total Amount of money. | Lease Granted. | Dues. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | | £ | £ | £ | | | | | | | Tons | Tons | Tons. | £ s. d. | In. Years | |
| 5120 | 5 | Alfred | 16¼ | 1 17 | 9472 | copper | Phillack | H. Noell | Hayle | Cost book | two months | 2819 | — | — | 19,210 8 0 | 1850 .. 21 | 1-18 & 1-30 |
| 4000 | 2½ | Bedford United | 6¼ | 1 3 | 4600 | copper | Tavistock | G. Kleckhoefer | 59, Threadneedle-street | ditto | ditto | 1700 | — | — | 10,341 14 6 | 1841 .. 21 | 1-15 |
| 1624 | 11½ | Botallack | 21⅝ | 15 | 1500 | copper and tin | St. Just | S. H. James | St. Just | ditto | ditto | 208 | 191 | — | 12,150 19 2 | — .. — | 1-24 |
| 4000 | 2½ | Ballaswidden | 10 | 1 16 6 | 29634 | tin | St. Just | R. V. Davy | Penzance | ditto | three months | — | — | — | — | 1841 .. — | 1-33 |
| 1000 | 15 | Calstock United | 4¼ | ¼ | 1000 | copper | East Calstock | G. Carne | 20, Threadneedle-street | ditto | two months | — | — | — | — | — .. — | |
| 256 | 20 | Carn Brea | 87½ | 9 | 9000 | copper and tin | Redruth | R. H. Pike | Camborne | ditto | ditto | 7663 | — | — | 42,181 6 6 | — .. — | |
| 1024 | 1 | Condurrow | 95 | 2 | 512 | copper and tin | Camborne | N. Vivian | Camborne | ditto | ditto | 1650 | 87 | — | 12,009 12 0 | 1845 .. 21 | 1-20 |
| 128 | 50 | Devon Great Consols | 280 | 40 | 40960 | copper | Tavistock | J. Allen | Barge-yd., Bucklersbury | Joint-Stock | ditto | 18921 | — | — | 111,082 0 0 | 1844 .. 21 | 1-12 |
| 11000 | 3 | East Wheal Rose | 430 | 72½ | 9280 | lead | Newlyn | E. Michell | Truro | Cost-book | ditto | — | — | 4015 | 55,918 10 6 | — .. 21 | |
| 119 | 100 | Great Polgooth | 3 | 2s | 1100 | tin | St. Austell | W. Brown | St. Austell | ditto | — | — | 188 | — | 9,101 0 0 | — . — | |
| 1024 | 8½ | Great Work | 160 | 25 | 2975 | tin | Breage | J. Clark | Helston | ditto | three months | — | — | — | — | — .. — | |
| 160 | 2½ | Herodsfoot | 4 | ¾ | 384 | lead | St. Pinnock | J. Watson | 13, George-yard | ditto | — | — | — | 755 | 9,012 0 0 | — .. — | |
| 1000 | 17 | Levant | 140 | 19 | 3040 | copper and tin | St. Just | John Rodda | Penzance | ditto | two months | 1539 | — | — | 7,350 5 6 | 1839 .. 21 | |
| 512 | 5½ | Lewis | 10 | 1½ | 1500 | tin | St. Erth | P. Stainsby | Salvador House | ditto | six months | — | 337 | — | 16,715 16 8 | — .. — | |
| 200 | 22½ | Mary Ann | 42 | 9 | 4608 | lead | Menheniott | P. Clymo, jun. | Liskeard | ditto | three months | — | — | 1363 | 20,880 0 0 | 1845 .. 21 | 1-18 |
| 140 | 10 | North Pool | 170 | 42½ | 8500 | copper and tin | Pool | H. Borrow | Truro | ditto | two months | 5914 | — | — | 21,078 10 6 | 1845 .. 21 | 1-16 |
| 6000 | ¼ | North Roskear | 180 | 30½ | 4270 | copper | Camborne | T. Hutchinson | Camborne | ditto | ditto | 4548 | — | — | 25,844 13 6 | — .. — | |
| 560 | 20¼ | North Basset | 7 | ¾ | 1500 | copper and tin | Illogan | J. Pascoe | 50, Threadneedle-street | ditto | — | 2630 | — | — | 15,352 13 8 | — .. — | 1-15 |
| 128 | 55½ | Providence Mines | 20¼ | 3 | 1680 | tin | Uny Lelant | S. Higgs | Penzance | ditto | three months | — | 198 | — | 9,183 7 0 | — .. — | |
| 1160 | 21½ | Par Consols | 550 | 40 | 5120 | copper | St. Blazey | W. Davis | St. Blazey | ditto | four months | 6986 | — | — | 44,353 3 0 | — .. — | |
| 200 | 30 | Perran St. George | 40 | 1¾ | 2030 | copper and tin | Perranzabuloe | E. Way | Newport, Isle of Wight | ditto | — | 3753 | — | — | 14,375 4 0 | — . — | 1-20 |
| 248 | 40 | Phœnix | 240 | — | 3060 | copper and tin | Linkinghorne | T. Cross | Liskeard | ditto | — | 962 | — | — | 10,501 13 6 | — .. — | |
| 256 | 60 | South Frances | 126 | 42 | 10416 | copper | Illogan | Com. of Man | Redruth | ditto | four months | 2709 | — | — | 20,351 18 0 | 1844 .. 21 | 1-15 |
| 256 | 16 | South Tolgus | 150 | 16½ | 4224 | copper | Redruth | T. Michell | Redruth | ditto | ditto | 2427 | — | — | 14,323 7 9 | — .. — | |
| 256 | 104 | South Basset | 380 | 60 | 15360 | copper | Illogan | W. Richards | Redruth | ditto | ditto | 5442 | — | — | 33,324 7 6 | 1850 .. 21 | 1-15 |
| 256 | 24 | South Caradon | 112 | 15 | 3840 | copper | St. Cleer | T. Kittow | Liskeard | ditto | ditto | 2818 | — | — | 20,208 0 0 | 1846 .. 21 | 1-18 |
| 94 | 60 | St. Ives Consols | 125 | 13 | 1222 | tin | St. Ives | J. Millet | Penzance | ditto | three months | — | 286 | — | 12,235 6 4 | — .. — | |
| 1024 | 92 | Tremayne | 24 | 3½ | 3584 | tin and copper | Gwinear | R. R. Michell | Marazion | ditto | four months | — | — | — | 14,367 0 0 | — . — | 1-15 |
| 520 | 84 | Trelawny | 43 | 4½ | 2346 | lead | Menheniott | J. Philp | Liskeard | ditto | three months | — | — | 1046 | 19,339 8 0 | 1844 .. 21 | 1-12 |
| 120 | 130 | Treviskey and Barrier | 210 | 56½ | 6780 | copper | Gwennap | Williams & Son | Redruth | ditto | two months | 2459 | — | — | 14,724 0 0 | — .. — | 1-15 |
| 120 | 5 | Trethellan | 12 | 2½ | 300 | copper | Gwennap | W. Richards | Redruth | ditto | ditto | 523 | — | — | 1,535 18 6 | — .. — | 1-15 |
| 512 | ¼ | Trelsane | 6 | 2 | 1024 | lead | Menheniott | J. Philp | Liskeard | ditto | ditto | — | — | 414 | 6,627 12 6 | 1846 .. 21 | 1-15 |
| 100 | 95 | Trumpet Consols | 170 | 5 | 500 | tin | Wendron | R. R. Michell | Marazion | ditto | ditto | — | 200 | — | 10,720 5 7 | — .. — | |
| 200 | 80 | United Mines | 85 | 2½ | 500 | copper | Gwennap | Com. of Man. | Gwennap | ditto | two months | 8181 | — | — | 39,001 18 6 | 1840 .. 21 | 1-15 |
| 256 | 20 | West Caradon | 115 | 16½ | 4224 | copper | St. Cleer | E. A. Crouch | Liskeard | ditto | ditto | 4108 | — | — | 30,329 17 0 | 1849 .. 21 | 1-16 |
| 256 | 5 | West Buller | 550 | 70 | 17920 | copper | Redruth | S. & R. Davey | Redruth | ditto | ditto | 5747 | — | — | 33,913 17 6 | — .. — | |
| 128 | 107 | Wheal Seton | 190 | 24 | 4752 | copper | Camborne | T. H. Tilley | Redruth | ditto | ditto | 5471 | — | — | 24,708 7 6 | — . — | 1-14 |
| 240 | 20½ | Wheal Roath | 80 | 12½ | 3000 | tin | St. Ives | R. Pearce | Penzance | ditto | ditto | — | 354 | — | 15,812 7 10 | 1845 . 21 | |
| 1024 | 73 | Wellington | 4 | ¾ | 768 | copper and tin | Perranuthnoe | R. R. Michell | Marazion | ditto | two months | — | — | — | 1,946 13 6 | — .. — | 1-18 |
| 1024 | 1½ | Wheal Spoarn | 11 | 1¾ | 1792 | tin | St. Just | R. Pearce | Penzance | ditto | three months | — | — | — | — | — .. — | |
| 113 | 79 | Wheal Margaret | 130 | 14 | 1568 | tin | Uny Lelant | W. S. Arthur | Penzance | ditto | ditto | — | 249 | — | 12,361 6 7 | 1841 . 21 | 1-24 |
| 512 | 10 | West Providence | 110 | 5 | 2560 | tin | St. Erth | R. R. Michell | Marazion | ditto | — | 189 | 159 | — | 9,654 9 4 | — .. — | 1-18 |
| 128 | 120 | Wheal Friendship | 110 | 12 | 1536 | copper | Devon | J. Taylor & Sons | Queen-st-place, London | ditto | — | 2474 | — | — | 16,408 9 0 | — .. — | |
| 480 | 33 | Wheal Lovel | 33 | 8 | 3440 | tin | Wendron | W. Carne | Falmouth | ditto | three months | — | 176 | — | 9370 0 0 | — .. — | 1 24 |
| 5000 | 4 | Wheal Golden | 6 | ¾ | 3250 | silver-lead | Perranzabuloe | J. D. Young | 2, New Broad-street | ditto | — | — | — | 620 | 8,060 0 0 | — .. — | |
| | | | | | 213,894¼ | | | | | | | 101841 | 2425 | 11515 | | | |
| | | WELSH. | | | | | | | | | | | | | | | |
| 1248 | 1 | Allt y-Crib | 9 | ⅜ | 468 | silver-lead | Talybont | Francis & Co. | Crown court | ditto | — | — | — | 285 | 3,189 0 0 | — .. — | 1-14 |
| 100 | 75 | Lisburne | 650 | 105 | 10500 | lead | Cardigan | J. Taylor & Son | Queen-st.-place, London | ditto | two months | — | — | 3075 | 33,521 0 0 | — .. 21 | 1-10 |
| 128 | 60 | Cwmystwith | 100 | 5 | 640 | lead | Cardigan | ditto | ditto ditto | ditto | — | — | — | 760 | 8,260 0 0 | — .. 21 | 1-10 |
| 1000 | 2½ | Bryntail | 12 | ¼ | 250 | lead | Montgomery | J. H. Smith | Cornhill | ditto | — | — | — | 423 | 4,332 0 0 | — .. 21 | 1-10 |
| | | | | | 11858 | | | | | | | | | | | | |
| | | IRISH. | | | | | | | | | | | | | | | |
| 5000 | 5 | Wicklow | 31 | 2 14 | 13500 | copper | Wicklow | W. Cutter | 43, Dame-street, Dublin | — | six months | — | — | — | — | — .. — | |
| 3715 | 14 | General Mining Company | 5 | 20 p. ct. | 1207⅝ | copper and lead | — | T. Maguire | 2, Burgh-quay, ditto | — | ditto | — | — | — | — | — .. — | |
| | | | | | 14707⅝ | | | | | | | | | | | | |
| | | SCOTCH. | | | | | | | | | | | | | | | |
| 5000 | 5 | Black Craig | 4 | ¼ | 625 | lead | Kirkcudbright | J. Watson | 13, George yard, London | Cost-book | — | — | — | 665 | 6,369 0 0 | 1849 .. 21 | 1-14 |
| 787 | 99 | Kirkcudbrightshire | 3½ | ¼ | 196½ | lead | ditto | T. Hackett | 29, Birchin-lane, ditto | ditto | — | — | — | 524 | 5,437 0 0 | 1846 .. 21 | 1-14 |
| | | | | | 821½ | | | | | | | | | | | | |
| | | FOREIGN. | | | | | | | | | | | | | | | |
| 12000 | 40 | Cobre | 34 | 7 | 84000 | copper | Cuba | W. Leckie | 26, Austinfriars, London | Bd. of direct. | six months | 15837 | — | — | 236,735 6 0 | — .. — | |
| 11000 | 15 | St. John del Rey | 22 | 3 | 33000 | gold | Brazil | W. Routh | 8, Tokenhouse-yard, ditto | ditto | ditto | — | — | — | — | — .. — | |
| 20000 | 20 | General Mining Assoc. | 12 | ¼ | 10000 | iron and coal | Nova Scotia | T. B. Frood | 52, Old Broad-street, ditto | ditto | ditto | — | — | — | — | — .. — | |
| 10000 | 14 | Copiapo | 4½ | ¾ | 2500 | copper, &c. | Chili | E. J. Cole | 2, New Broad-street, ditto | ditto | — | 406 | — | — | 6,919 16 0 | — .. — | |
| 2700 | 2½ | Marmato | 12 | 2 | 5400 | gold | New Granada | R. L. Jones | 13, Austinfriars, ditto | ditto | six months | — | — | — | — | — .. — | |
| | | | | | 134,900 | | | | | | | | | | | | |

the direction of Capt. Goyen, to raise the sump shaft 3 ft., which is all they can venture to do, in consequence of the position of the Cachoeria Mine above it.

| | | |
|---|---|---|
| Cost for Oct., Rs. 43,723 418, at 2s. 5½d. | | £5328 15 10 |
| Produce | 28,247 oits. | |
| Less duty 5 per cent. | 1,412 „ | |
| | 26,835 oits. at 7s. 8d. | 10,286 15 0 |
| Profit | | £ 4957 19 2 |

*Nov.* 17.—Gold extracted to date, 8862 oits., from 529·63 cubic feet of sand, result of 10 days' stamping, equal to 16·73 oits. per cubic foot. This produce is not bad, but it is 100 oits. less than that of the corresponding 10 days of the preceding month, whereas some rain, though but little, having fallen early in the month, it might have been expected that the stamps would have crushed a greater quantity of stone, and produced a corresponding increase in the gold.

### UNITED MEXICAN MINING ASSOCIATION:—

*Guanaxuato, Nov.* 28.—Mine of Rayas.—I inclose the usual monthly report on the mines generally, by Mr. Parkman. The working of this mine by buscones has been continued throughout the month, and the nett profit derived has amounted to $15,060 3 7, which, although a decline from the product of the previous month, is nevertheless highly satisfactory and remunerative. This decline is neither unexpected nor surprising, taking into consideration that the efforts of the buscones have chiefly been directed towards those points in the mine long since abandoned by the regular miners as unremunerative, and now denuded of all remaining ore by the researches of new workmen. A farther decline in the coming month may still be looked for from the exhaustion of other points in the mine, under similar circumstances.

New Mines.—Aldana.—To comply with the provisions of the mining laws, which enact that a certain amount of work shall be carried on each year in all mines, I have employed a few workmen in the pozo of Santo Torribio, whose labours have, however, produced nothing worthy of report.

Trinidad.—A similar precaution has been adopted in this mine.

Jesus Maria y Jose.—The operations of the month have manifested one very interesting and notable circumstance—namely, the increase of width in the vein, both in the pozos of San Ricardo and San Pablo, and which leads to the hope that a greater depth will produce a favourable change in the appearance of this speculation.

Mina Grande.—The operations have been confined entirely to the timbering the shaft of San Jose, with a view to the more economical and complete explorations of the territory to the south of the old Pozo Blanco. The portions of the mine assigned to buscones have yielded about 60 cargas of good ore, which will be sold on joint account with these workmen.—J. S. Farrell.

*Report on the State of the Workings in the Mines of the United Mexican Mining Association.*

Rayas.—The sale of buscones ore in this mine show a very notable decline in this compared with the preceding month. The weekly profits in this month are $3512, while in the preceding they were $3715. This decline has been far more sudden than was expected, and is mainly ascribable to a falling off in two of our best "campos"—viz., the Balcon and St. Vicente. Moreover, a gradual exhaustion of the productive points, and a decline of prices, have helped to bring this result above referred to. So near the term of the contract, the mine presents no subject for further remark.

Mina de Jesus Maria.—The pozo of San Ricardo has advanced 12·30 varas, without any change in the character of the vein worthy of mention. The cross-cut adverted to last month indicates a width of vein of more than 7 varas. This work did not detain the water as we had hoped it would; it has found its way to the bottom of the pozo, where it has been latterly somewhat troublesome. The pozo of San Pablo has advanced 20·90 varas; the vein in the bottom has become wider, and contains a little ore of a promising character. The caja of the shaft is concluded, having capacity sufficient for present purposes. The entire depth is now 197·25 varas. I am in hopes that, by the end of next month, we may commence the general levels from San Ricardo and San Pablo, and as this can be prosecuted from four distinct points simultaneously, we shall soon test the vein at that depth.

Mina Grande.—The inclined shaft of San Jose is timbered to the present bottom, and in a state to facilitate the prosecution of the level to the south, a work, in my opinion, of great interest, upon the result of which the fortunes of this mine mainly depend. In La Bomba, there has been no improvement, and the work is suspended, in the hope of being enabled to test the vein more economically from the shaft of San Jose, when it shall have attained the proposed depth. The northern portions of the mine have been offered to buscones, but few have as yet taken "campos." The ore they are extracting looks well, and may, after the first sale, attract an increase of workmen. In La Trinadad and Aldana, the amount of work required to secure the mine against denouncement is being performed.—S. P. Parkman.

### BRITISH MINES.

**ALFRED CONSOLS.**—Field's engine-shaft is sunk 4 fms. 1 ft. 6 in. under the 90 fm. level; lode here without change to notice since the last report. The lode in the 90 fm. level, east of this shaft, is 5 ft. wide—worth for copper ore 100*l.* per fm. The lode in No. 2 winze, sinking under the 80 fm. level, east of this shaft, is worth for copper ore 20*l.* per fm. The lode in No. 3 winze, sinking under the 80 fm. level, east of this shaft, is worth for copper ore 70*l.* per fm. Wyld's shaft is sunk to the 90 fm. level; the men are put to drive south-west to cut the lode, and expect to do so in about 2 fms. driving. The cross-cut south, in the 80 fm. level, is progressing favourably. In the 60 fathom level, west of the engine-shaft, we have commenced driving north on the lode; no change yet to notice. No other change since the last report. Our tribute setting on Saturday last, over the 80 fm. level, was to 30 men, at the average tribute of 1s. 5d. in 1*l.*; over the 70 fm. level, to 12 men, at 3s. 4d. in 1*l.*; and over the 60 fm. level, to two men, at 8s. in 1*l.*—in all 44 men.

**APPLEDORE.**—In the 20 fm. level we have cut three very kindly branches, composed of spar, peach, and mundic, and carrying well-defined walls; they occupy a space of about 5 feet wide at the point of intersection, and all converging in going south, so that I expect they will form one main fissure in a few fathoms driving; there is a beautiful elvan accompanying them. In the western level we have driven 23 fms.; the ground is still very favourable—set at 35s. per fm. We expect to cut the western lode in about 4 or 5 fms. further driving. This may appear strange after what we have before stated, and can only be satisfactorily explained by a diagram, which I will shortly send you, with a minute account of the position.

**BEDFORD UNITED.**—In the 115, east of Andrew's winze, we continue to drive on the course of two branches, which now appear to incline faster towards the main lode. The rise in the 80 is holed to Warne's winze in the 70 by a borer hole; the men who were in the rise have resumed driving the 80, which yields from 4 to 5 tons per fm. No alteration in the 47 west.

**BODMIN WHEAL MARY CONSOLS.**—Since last report our men have been assisting the sumpmen at capstan, and fixing rods and plunger lift. We hope to complete this work to-morrow, and have the water out by Monday next, to enable all hands to work on that day.

**BORINGDON PARK.**—Since last report the men have been busily employed cutting the plat and other necessary work, to enable two pares to commence driving on the course of the lode. We have cut in further north, and find the lode to be 4 feet wide, and of a very promising appearance—a great deal more promising than in the level above at this point, where the lode was very poor for upwards of 20 fms. west, and 10 fms. east; and as we have occasionally some good stones of lead and copper where we have cut into the lode in our 15 fm. level, we may reasonably anticipate large deposits of ore when we get under the ore ground we had in the adit above. I have put the shaftmen to drive west to intersect the first slide, which, when cut, will drain the water that is coming out of a branch in the western end of the shaft, and will greatly facilitate the sinking of the same. I have also put a pare of men to drive east, which we shall force on to intersect the north and south course as speedily as possible. All our other operations are progressing satisfactorily.

**BRYNTAIL.**—The end in the 15 fm. level going east will produce 1½ ton of lead ore per fm. Nos. 1, 2, and 3 stopes are as good as when last reported. Bishop's rise will produce 2 tons per fm. In Hill's rise we have been rising 6 fms. by the side of the lode; we have put four men to drive through the lode, and they have already broken some good stones of ore. The north adit driving east is not yet under the orey ground in the 15 fathom level.

**CARBONA.**—The engine-shaft is set to six men to sink 10 fms. below the 45 fm. level, for the sum of 80*l.* The 45 is driving east from the engine-shaft by two men and two boys, at 25s. per fm.; and the 45 fm. level east, at 70s. per fm, by two men and two boys. The 35 fm. level, east of engine-shaft, is driving by two men and two boys, at 30s. per fm.; and a winze from this level is going down west by four men and two boys, at 40s. per fm. Two men and two boys are rising from the back of the 45 west, at 40s. per fm. The shaftmen, in sinking below the 45 fathom level, found in the lode a leader of tin at the bottom of the shaft, 1 ft. wide, which leads us to hope that next week we shall be sinking the shaft fast on a productive tin lode; the lode in the 45 east for the last 6 feet has been poor south of the cab, but in cutting through the cab north we find a lode 18 in. wide—all saving work; the lode in the 45 west is at present hard and poor. In the 35 fm. level east the leader part of the lode is about 1 ft. wide, good work; the winze just communicated from the 35 to the 45 fm. level has yielded tinstuff worth 20s. per ton. The tribute ground here is set to four men, at 14s. in 1*l.* Two pitches are working east of the engine-shaft in the 45 fm. level, one by three men, at 10s., and one by two men, at 12s. in 1*l.* One pitch in the back of the 35 fm. level, by two men, is working at 8s. in 1*l.*, and two in the back of the 15 fm. level east—one at 13s. 4d., and one at 14s. We opened last month 42 fms. 5 ft. of ground—viz.: The 45 fm. level, east of engine-shaft, 5 fms.; ditto west, 6 fms. 1 ft. 6 in.; the 35 east, 6 fms. 3 ft. 6 in.; the rise from the 25 to the 15 fm. level, 4 fms. 3 ft.; the 35 fm. level east winze, 2 ft.; clearing south adit, 11 fms.; clearing cross-cut north, 9 fms. 1 ft. The quantity of tinstuff raised was 77 tons 8½ cwts. yielded (by assay) 38 cwts. of black tin. The new engine-house is about finished. The bob and boiler are on the ground. We expect to sell next week about 50 cwts. of black tin.

**CARVANNALL.**—At the engine-shaft we have been engaged in cutting ground for fixing plunger-lift, and have just commenced sinking under the 66 fm. level, where the lode is 2 feet wide, of an uniform character with what it has hitherto been. The 66 fm. level has been extended within the last two months 20 fms., on a lode averaging 2 ft. wide; about 16 fms. behind this end we had a good branch of grey ore for a length of 3 fms. In the present end the lode is 3 ft. wide, producing rich stones of grey ore. The 56 fm. level has been driven 12 fms., for the first 9 fms. of which the lode was 2 ft. wide, and worth 30*l.* per fm. In the present end the lode is composed of gossan, fluor-spar, and prian. A winze has been commenced 5 fms. behind this end, where the lode will yield 6 tons per fm., of 12*l.* per ton. The 46 end has been driven 7 fms. on a very kindly gossan lode. The cross-cut driving south in the 32 fm. level, to cut Caddy's lode, is extended, since last meeting, 15 fms., in ground averaging 2*l.* 19s. per fm. On the whole, our prospects, we can safely say, never were better, and a continuation of such will certainly place Carvannall respectably in the ticketing paper, which is well known to be the best criterion of a mine's productiveness.

**CASTLE DINAS.**—The wheel has been completed for several days past, and the stamps (8-heads) are progressing as fast as possible. In our next report we hope to be able to say that we are actually stamping.

**CHARLESTOWN UNITED.**—The shaft rising from the back of the level west of No. 1 cross-cut continues going on very favourably; we are now up about 14 fathoms, and the ground at present is remarkably good; we are pushing on this rise with all possible speed, as it will be of material benefit to us when holed, which we hope to do in about a fortnight. The cross-cut south of gossan, west of No. 1 cross-cut, is now driven on the lode about 5 feet, and no appearance yet of the south wall; this lode still continues to produce work of first-rate quality. The lode in the stopes between No. 1 and No. 2 cross-cuts is looking well, and producing large quantities of work, which we are daily conveying to the stamps. The lode stoping out of the side, west of No. 3 cross-cut, is 6 ft. wide, and still productive of tin. At No. 4 cross-cut we are in the lode about 12 feet, which is producing tin, and no appearance yet of the south wall. The cross-cut north of Fatwork shaft is still in a beautiful channel of ground, and good for driving. The work coming out at the stamps from the above-named places is looking well.

**CEFN BRUNO.**—The lode in the 24 fathom level west is small and poor at present, being disordered by a cross-head, but ore is expected again soon at this point, as the lode is getting into more settled ground, and there is a length of 20 fms. of ore ground still in advance, as seen in the level above. The stopes over the 24 are producing 2½ tons of lead ore per fm. The lode in the adit west is still yielding 1½ ton of ore per fathom, and the stopes over this level 1½ ton per fathom. The lode in the western shaft is 2 ft. wide, of a promising appearance, yielding good stones of ore. According to the underlay, about 4 fms. remain to drive the deep adit level, to intersect the lode under this shaft. The crushing mill and dressing floor will be completed soon.

**CEFN CAM SLATE QUARRY.**—There is no alteration to notice in the workings here; they are producing good slates (sizes) from the open cutting No. 4.

**CHYPRASE CONSOLS.**—Since my last we have finished cutting the plat 14 ft. long, and 10 ft. wide in the 40, and driven 1 fm. more in the south end, in which we have discovered a branch of the lode containing many rich stones of tin; from the increase of water which comes more freely from this end we are doubtless very near the lode. We expect to cut it by driving about 2 fms. further, altogether no ground can look more promising than this for a productive lode. We have set four men to drive north-west, which they have done 2 fms.; the ground is easier here than in the south level. We have also put down plunger pole in place, fixed penthouse, &c., with sundry other pitwork, all of which has been pushed on with the utmost speed, and we are now sinking the remaining 7 ft. in shaft to complete for plunger lift to work, so that we may be prepared to fork the greatly increased body of water we shall have to lift, when we begin to drain the old workings.

**COPPER BOTTOM.**—The rise in the back of the 30 fathom level, west of Paull's shaft, is communicated to the winze sunk in the bottom of the 20 fm. level; we are stoping the west ends of the rise and winze by eight men; the lode is yielding 1½ ton of ore per fm. At the end of the present month I intend setting this piece of ground at a tribute of 9s. or 10s. in 1*l.* In the 20 fm. level, driving west of Stanley's shaft, the lode, although unproductive at present, has a much more promising appearance than it has had for the last 50 fms. I attribute the improved appearance of the lode to its having got into a better stratum of mineral ground. In the 10 fm. level, driving west of Highburrow shaft, the lode is 2 feet wide, composed of quartz, mundic, and yellow ore; it is daily improving, and I have not the slightest doubt that if we persevere in opening the ground large deposits of ore will be found in this part of the mine. We have commenced sinking May's shaft by eight men, but have not yet taken down any of the lode. I would recommend the sinking of this shaft as fast as possible. I believe we shall have a course of ore at the next level, but as lodes of a similar nature to this generally prove most productive at a greater depth, I do not consider this lode will have had a fair trial until the shaft is sunk 80 fms. below the adit and the levels driven west on the course of it; should the ground continue favourable this may be accomplished in one year and nine months, and I am convinced the results will be satisfactory to all concerned. The branch in the back of the 20 fm. level, west of May's shaft, is still producing good ore. There has been no alteration in any other part of the mine since my last report.—P. S. The appearance of the side of the 10 fm. level, west of Highburrow, led me to suppose that a piece of lode was standing to the south of it, I, therefore, ordered the men to shoot it down, and they have just returned to the surface; they state that they have discovered a branch, 9 in. wide, composed of quartz and yellow ore, and, consequently, the lode in this end is now 2 ft. 9 in. wide.

**CUBERT SILVER-LEAD.**—The engine-shaft is down 6 fms. below the 35 fm. level—ground still rather hard for sinking. In the 35 fm. level east the lode is much larger, and ground easier for driving; the lode is composed of beautiful spar, and worth about 12 cwts. of lead per fm.; this end appears to be approaching the fine runs of lead gone down from the 25 fm. level; this is driving on the south lode. In the 35 fathom level west we are cross-cutting to the south lode, which appears to be the main and most productive lode in the eastern level; the cross cut will be 6 or 8 ft. In the 25 fm. level west the lode assumes the same appearance as for many fms. past, producing a little lead, and leaving good tribute ground; the air is very bad in this end, and I have placed the men to rise to hole the winze, which will enable the tributers in this level to work better; the rise is turning out good work for lead, we hope to complete this some time next week. In the 15 fm. level east the lode at present is rather small, but it is composed of beautiful spar, with a little lead; I am of opinion that this end will not continue in this state long, but we shall have a larger lode, with much more lead. I shall pay particular attention to this part of the mine, as it is of great importance to get under the splendid gossan going down from adit also at the junction of Trebellan lode with this lode; there is beautiful ground for lead here. The 15 fm. level west is producing good stones of lead in a well-defined lode, and I am of opinion that we shall see some great improvement in this end shortly. The tribute pitches are producing well, and the dressing progressing satisfactorily. I purpose sampling about the end of the current month 30 tons of lead. The average price of the tribute pitches is 8*l.* 9s. per ton.; the average price of ends driving 8*l.* 7s. per fm.; the engine-shaft, 30*l.* per fm.

**CWM ERFIN.**—No material alteration has taken place in the mine, except in the 45, west of engine-shaft, which looks more promising, the lode large with ore in it in several places, but not enough to pay for working; the same level east is also poor, but still has a little ore in the vein, which is small; the rise over this level west still yields 18 cwts. of ore per fm.; the stopes east 1½ ton per fathom. There is a good lode in the winze from the 30 to the 45, producing 1½ ton per fathom. The rise and stopes over the 10 fm. level still produce good ore, but it is not regular. The sampling on the 19th inst. is expected to be about 32 tons.

**CYFANNEDD FAWR.**—The driving in the adit remains without change since my last report. They will finish the dressing of the ore by the end of this month

**DEVON AND CORNWALL UNITED.**—In the western part of George and Charlotte old mine we have discovered a shaft from which a level has been driven west 10 fms., in the end of which there is a large lode, carrying a leader 6 in. wide of very good ore. In the cross-cut driving south at Emily's shaft we have met with some rich ore in the cross-course, which is considered a good indication. I hope to see the lode in about a month from this time.

**DEVON BURRA BURRA.**—The engine-shaft is progressing rapidly through a beautiful stratum of ground, and we are getting on as fast as possible with the arrangements for the water-wheel. The lode in the end west is as good as it can be, unless we had it all saving work, which we cannot expect at that depth. We are safe for something extremely good.

**DEVON CONSOLS NORTH.**—The lode in the adit end, east of Morris's shaft, is 4½ feet wide, with two well-defined walls and a regular underlie; we are carrying about 3 feet of the lode with us, which is composed of prian, spar, and mundic, with spots of copper ore, and still producing some beautiful greens; from present indications, we may conclude that good results will follow at a deeper level.

**DOLAWEN (North Wales).**—About 47 tons of copper ore are ready for sampling, and this will be made up to about 70 tons by the end of the month, ready for market. About 3 fms. of good ore have been gone over in the 15 fm. level—the end is now poor. The north lode is looking well, and appears likely to pay well for returning as soon as the railroad is completed to the crushing-mill.

**DOLFRWYNOG.**—Williams's engine-shaft is progressing very favourably; we are now down about 14 fms. At Harvey's trial we have commenced the new workings, and, as the ground is cheap and very promising, I hope soon to be able to send you good accounts.

**DYFNGWM.**—The 42 fm. level west has been driven 1 fm. 5 ft. 6 in. further; this is less than usual, in consequence of a breakage in the machinery interrupting the working of this part of the mine for a week; this driving is through a rich course of lead ore, considerably richer than any I ever saw in Dyfngwm—it is from 1 to 2 ft. wide; the end became poorer towards the end of the month, but is again now improving. The end of the level is now as far as the winze (old workings), the bottom of which I never saw, as it is filled with water; we hope to hole through this week. In the back of the 42 fm. level east 5 fms. 2 ft. 6 in. of orey ground has been stoped; this stope contains some good bunches of ore, and is likely to continue. In the bottom of the 22 fm. level 13½ fms. of orey ground has been stoped; this was much mixed up with jack, but it diminishes as we go down. In the 22 fm. level west 4 fms. of orey ground was stoped; this portion of the mine continues productive—varying, it is true, very often. We have driven east from the end of this level to meet the stope 1½ fm., through orey ground; as soon as it is connected with the stope we shall put on more men in this level. The Castle engine-shaft has been sunk 2 fms. below the 20 fm. level. Bryn Moel level has been driven 2½ fms. further west, without any change in its character. We have now a sufficient supply of water for all purposes of the mine, as well as crushing. We are cutting the wheel-pit (for the new wheel) in an old attle heap, and expect to finish it in about a month, as I think we shall have no rock to break. We are gradually increasing our stock of dressed ore, and have about 5 tons of ore dressed, and shall go on increasing as the ore is improved. Our plans for increasing the quantity of water are progressing, and arrangements are nearly made for our new reservoir. Our settings for Jan. are—four men, to drive the 42 fm. level; four ditto, to stope orey ground in back of 42 fm. level; twelve ditto, to stope bottom of 22 fm. level; two ditto, to drive 22 fm. level west; three ditto, to stope in back of ditto; four ditto, to sink engine-shaft at Castle.

**EAST BORINGDON.**—Since last report we have fixed our drawing lift below the 20 fm. level, and have sunk Annie's shaft 4 fm., in ground more favourable for sinking. Since my last we have driven the 20 fm. level 10 fms.; on account of this level getting so very shallow as we go down the hill, and requiring a great deal of timber, I thought it advisable to suspend driving the same, which I have done. In the 20 fathom level east, we have cross-cut the north part of the lode, which is upwards of 4 ft. wide, and is composes of lead, spar, prian, flookan, and mundic, and is altogether a very kindly lode. The air in this level is very bad, and we shall be obliged to put in a machine to throw air, as the men have been hindered a great deal for the want of it. We shall get the machine and pipes fixed by next Saturday.

**EAST CROWNDALE.**—The lode in the 58 west produces a little copper ore, but not worth saving. We intend setting a pitch next week on the bunch of copper driven through. The lode in the rise yields a little more copper, but ground hard.

**EAST WHEAL GEORGE.**—The engine-shaft is sunk 7 fm. 2 ft. below the 23 fm. level, during the past week, through a floor of capel, which has let down a large stream of water, evidently from the lode: the ground under this capel is a beautiful killas. I should recommend the shaft being sunk 12 fms., and to make a 35 fm. level, at which, if the lode continues on the angle as above, we shall intersect it in cutting the plat, about 9 ft. south of the shaft, and will take about ten weeks to do. This depth will be quite as much as our present power will enable us to go, the wheel being already heavily burthened. The 23 is extended 35 fms. east, and about 52 fms. west of the shaft, the latter being from 40 to 50 fms. of the boundary. There is a quantity of ground in the back of this level, on the main lode, that would leave a profit, provided we had stamps for returning it. The men are earning fair wages in the pitch in the back of the 12. I hope we shall be able to raise ore enough, to meet the current cost until the lode is fairly explored below.

**EAST WHEAL MARGARET.**—Since we last met here, the engine-shaft has been sunk about 3 fms., making the depth from surface 27 fms. (somehow, by mistake, this shaft was represented as being 2 fms. deeper than it really was at the adventurers' last meeting); in this level an end has been driven west on the caunter lode 16 fathoms, the average width of which is about 15 inches, the produce in tinstuff 4*l.* per fm., and the price for driving 30s.; in the same direction there are about as many fms. more to drive to intersect Tregoning's lode, a point at which extensive workings were made by those of olden times, for doing which, report says, they were well remunerated, and judging from the appearances of the caunter lode in the end now, there is every probability of our being equally or more successful; recently we began driving from the shaft in the opposite direction, and almost immediately we purpose sinking it another 10 fms., in which we anticipate having the ground favourable. At Wheal Mirth we have been sinking west of the engine-shaft, and putting stopes over the old bottoms, which have turned out badly—very contrary to what we at first expected. The tin found in the lode here is exceedingly rich, but the quantity hitherto has been insufficient to pay the expenses of breaking it; this mode of working, which at first was adopted to ascertain the character and quality of the lode, should be given up, and a plan more methodical for exploration substituted; such as the sinking of a shaft and extending levels therefrom. At Curgenvin's, we stopped sinking the engine shaft at about 28 fathoms, and there commenced driving east and west on the lode; in the former direction the level is extended about 6 fms., where there are now two distinct lodes—the north one is about 6 inches wide, producing tin enough to pay one-half the expense of driving; the south lode is much larger, and the stuff it yields will about defray the cost of excavation; going west there are also two distinct lodes—the north one is small, very similar to that going east, both in size and quality; the south lode is from 18 in. to 2 ft. wide, worth about 2*s.* 6*d.* per barrow, to which apparently belongs a leader of tin standing at the north, separated as it were by a few inches of killas, varying from 4 to 6 inches in width, very good, worth 12*l.* per fm.; preparations are in progress preparatory to the sinking of the shaft below the 28, and by another adventurers' meeting we hope to see the lode 10 fms. deeper. Two lodes, you will observe, meet here a little west of the shaft, and again separate a few fathoms east of it, a spot, as well as that on which the engine is erected, exceedingly promising to be more productive at an increased depth.

**EAST WHEAL RUSSELL.**—We are sinking Hitchins's shaft with rapid speed, and have sunk since Jan. 1, 4 fms.; the lode is looking splendid. The stuff we are drawing up from the shaft is all stained with greens of copper. We are daily expecting to see the change. We have been expecting a great and good mine. I was in the tunnel yesterday, and saw the lode, from which we broke some good stones of ore, and it is looking very promising. We have driven a cross-cut, from the north side of the lode, south 4½ fms.; the last 3 ft. driving we have had a good orey lode, and there is no appearance of a south wall. We are still driving the same, and, according to all appearances, as we advance towards the cross-course we shall have large quantities of copper. Our two engines are working well, so we are in a good position for going on, with very little obstacle to our progress.

**ESGAIR LLEE.**—We have extended the cross-cut south in the 10 fathom level about 9 fms. The winze on the south lode is 10 fms. below the adit, and the lode still continues to improve in depth; the orey part is good work for 2 ft. wide, and has a promising appearance, yielding at present 15 or 20 cwts. of ore per fm., and for the last 3 fms. in sinking the lode has actually taken a north underlay. This accounts for the winze coming down to the north of the level; but we expect to intersect it in the 10 fm. level this week, and with every probability of being productive. The caunter lode in the adit, east of Jones's winze, is still looking well, and yielding about 1 ton of ore per fm. We sampled on Tuesday last 20 tons of lead ore, for sale on the 17th inst.

**GARREG.**—In the 26 fm. level, driving west from the engine-shaft, the lode is large, producing a small quantity of lead; the engine-shaft, which is sunk about 6 ft. below the 20 fm. level, is also in a large lode, but at present producing no lead. The tributers are still getting ore from the old backs.

**GOGINAN.**—There is a fine lode in the boundary shaft in the 45 fm. level; it is 12 ft. wide, spotted throughout with ore, but not rich. The lode in Taylor's shaft below the 130 fm. level is producing about 1 ton of ore per fathom. The stopes in the different levels are producing much as usual. The pitches at Level Nwydd are rather improving, and about 30 tons of ore will be sampled from this place in a few days: 127 tons of silver-lead ore from Goginan were sampled on the 13th inst.

**GREAT BRYN CONSOLS.**—Our tin lode is improving in size as we drive on its course. We are pushing the deep adit as fast as possible. The carpenters and smiths are busily engaged in making the wheel, &c., and we expect to have the castings from the foundry in a fortnight. I beg to call your attention to the general feeling of the neighbourhood, as manifested by the good dinner given to the men belonging to the mine [noticed in another column].

**GREAT POLGOOTH.**—The lode in the 96, east of Clarke's, is still producing good tinstuff. The ground in the cross-cut north, at this level, is easier, but from the dialling which is now laid down on the map, we have about 10 fms. further to drive to cut St. Martin's lode, the very recent operations in the 84 having shown the heave of the lode to be further north than the former course led us to anticipate; the middle lode in the 84 fm. level, east of Clarke's, has not been taken down since last report; the lode in the 84 fm. level, east of William's, driving west on south lode, is worth about 10 cwts. of tin per 100 sacks. The lode in three of the pitches in this level is improved, and five pitches are yielding, on an average, full 8 cwts. of tin per 100 sacks. The 66, east of Stick, on the north lode, is improved, and is now worth about 3 cwts. of tin per 100 sacks. The lode in the winze sinking under this level is worth about 3½ cwts. of tin per 100 sacks. The pitches, generally, are producing tin as usual, and the mine is improved since last report. On the 3d instant we sold tin for 474*l.* 3*s.* 2*d.*, and intend selling again on Mouday next. The rain has only just began to set in, and our water stamps are all to work this day for the first time.

**GREAT WHEAL BADDERN.**—The 50 fathom level, east from Buckley's, still continues poor; a rise in the back will produce ½ ton per fm. The 40 fathom level, east of Burgon's, is producing some ore, but nothing to save. The 30 fm. level east is on a good lode, and will produce 1 ton per fm; the south part of the lode has not been taken down for the week. The 20 east is producing a small quantity of saving work; in the 20 cross-cut for the last 3 fms. we have met with nothing but a continuation of branches and strings of mundic, prian, &c., which we fancy indicates being near the tin lode. At Kenworthy's, the lode in the 30 is large, but not rich for tin; we have now three pitches working, and hope to make returns in a month or two. The stopes generally are looking much the same as for the last month. Our dressing gets on but slowly, on account of the short days and so much rain.

**HENNOCK.**—The engine-shaft is sunk under the 30 fm. level 3 fms. 4 ft. The ground much the same as last week; and having now sunk sufficiently deep to secure the bearer, I have ordered the men to square the shaft and cut into the lode, which will be done by the latter part of this week, when I shall be able to report something of the character of the lode going under the 30 fm. level. In driving south in the 30 fm. level we are carrying a small portion of the western lode, which is producing some lead, and looking kindly for making more as we drive south. The 30 fm. level north is still in black ground, between the two lodes, making some spots of lead, jack, &c., and we are expecting to cut the western lode shortly.

**HOLMBUSH.**—It is with pleasure we have again to record that the mine is looking very promising indeed to become a profitable one, and we doubt not ere long it will be found as such. The ground in both perpendicular engine shafts is very favourable. The lode in the diagonal shaft sinking below the 132 fm. level, east of the cross-course, is 20 in. wide, and will produce 4 tons of copper ore per fm.; the stopes in the bottom of the level will produce 3½ tons of ore per fm. The lode in the 132 fathom level east is 12 in. wide, producing 1½ ton of ore per fathom; the 132 fathom level north and south, and the pitches in the back of the level, on the lead lode, are much the same as when last reported on—we may add there is no falling off. The flap-jack lode in the 120 fathom level, east of the great cross-course, is 3 ft. wide, and will produce 4 tons of ore per fm., and we expect to make the communication this day (Jan. 13), between the rise over this level and the pitch in the bottom of the 110 mentioned in our last report, which will be wrought at 7*s.* in 1*l.* The lode in the 110 fathom level, east of the cross-course, will produce 5 tons of ore per fathom; no lode has been taken down in the back of the level since last week, which is wrought at 3*s* in 1*l.*, the wall of which looks well. The lode in the 100 fm. level east is 6 ft. wide, and will produce 6 tons of ore per fathom. The tribute department in and throughout the mine is much the same, and the men are earning fair wages in their respective tributes.—P.S. The lode in the 100 fm. level, west of Wall's engine-shaft is 3½ ft. wide, composed of mundic, spar, prian, blende, and stones of copper ore—in fact, saving work, and the lode is improving as we near the 100 east from the great cross-course. A plan and section of the different points shall be sent you to refer to. We are increasing the number of men in each pare as fast as possible.

**KIRKCUDBRIGHTSHIRE.**—The lode in the bottom end, west of Stewart's, is become hard and unproductive. The 86, east of Gilpin's, has not improved—a large and strong lode in both ends, full of sulphur, with spots of lead. There is still a branch of ore in the 74 east, yielding about 5 cwts. to the fm.; west, this level seems improving, there being ore coming in on the north side, and some good stones of it in the rise over the 62 west, which we are expecting to hole to the 50 daily.

**LEWIS.**—The north lode in the 90 fm. level, east from sump-shaft, is 18 in. wide, with promising appearances. Praed's lode in the 30, east from Gundry's shaft, is 1 ft. wide, saving work; this lode, west from Stainsby's shaft, is 8 in. wide, opening tribute ground. In the 10 fm. level, west from Gundry's shaft, the south lode is 10 in. wide, opening tribute ground. Harvey's lode in the 17 fm. level from surface, east from Duke's shaft, is 15 in. wide, opening tribute ground. Rowe's lode, west from Rowe's shaft, in the adit level, is 18 in. wide, good saving work.

**LYDFORD CONSOLS.**—We have sent down our main shaft rods to the 50 fm. level, and changed the two drawing lifts to one plunger, which is now working very well indeed, and I hope by the beginning of next week to fork the water again to the 50 fm. level, and complete the shaft to that point, when we shall immediately commence forking below towards the 60 fm. level, where we expect to meet with some profitable tribute ground. At Wheal Mary, we have not been able to do anything towards shoding this week, the men being engaged at Wheal Adventure, helping to change the pitwork.

**MERLLYN.**—There is no alteration in the ends driving west from the engine-shaft. We are cutting ground for cistern at the engine-shaft, which is near completion; we have then to change the drawing lift to a plunger, after which we commence sinking the engine-shaft without further delay. The stopes in the back of the 16 fm. level are worth 40*l.* per fm. The stopes in the back of the 26 fm. level, east of whim-shaft, are worth 30*l.* per fm.; the stopes in the back of the 26 fm. level, east of the engine-shaft, are worth 50*l.* per fm., and are being worked for 10*s.* per fm. On the old lode we have cleared the shaft to the 20 fm. level; the back of this level is, with the exception of a few small pillars, completely taken away, and must have been the greater part ore, as the pillars now remaining contain good lead. The bottom of this level has been worked as low as the water would permit, but the engine has now drained the land below the old workings. We have commenced sinking the shaft below the 20 fm. level through the old workings, where, I have no doubt, we shall soon arrive at ore.

**NANTEOS.**—On the 18th inst., 50 tons of lead ore were sampled. The 50 east is in a lode 12 ft. wide, composed chiefly of spar, intermixed with mundic and lead ore throughout. The 30 west is yielding about 5 cwts. of ore per fathom. The stopes and pitches are yielding from 10 to 15 cwts. of ore per fathom. At Raith-du the lode still yields 12 cwts. of ore per fathom. The tribute pitches at Gwalthgoch and Llwyber Llwynog continue moderately productive.

**NORTH BASSET.**—We put the plunger lift to work at the new shaft on Monday last, and for some considerable time shall now reduce the consumption of coals for the engines. The lode in the 82 fm. level, west of the new shaft, is 2 feet wide, composed of yellow ore—a good lode. The lode in the 72 fm. level, west of the new shaft, is 2½ feet wide, composed of gossan and grey ore. The lode in the 62 fm. level, west of Lyle's shaft, is 3 feet wide, composed of gossan and stones of grey ore. The lode in the winze sinking below the 72 fm. level is 3 ft. wide—a good lode of yellow ore. The lode in the 82 fm. level, west of Miner's shaft is 3 ft. wide, composed of spar and yellow ore. We have set the 82 fm. level to drive east from Miner's shaft on the south lode.

**NORTH DOWNS.**—In the 80, east of west shaft, Christoe lode is 18 inches wide, with stones of ore. In the 70, east of John Mitchell's shaft, the lode is 18 in. wide, with good stones of ore, and looking more kindly.

**PRINCE ALBERT CONSOLS.**—We are down with the engine-shaft 10 fms. 3 ft. under adit, and shall now drive east and west on the course of the lode to make backs. We have a good lode holding down—in fact, it has improved during the last 6 ft. sinking. I am, therefore, fully persuaded that this mine ceases to be a speculation. We are progressing favourably with the erection of our new stamps and tin dressing machine, and hope to get them at work about the end of this month. We shall begin to repair Princess Royal adits this week.

**RHOSWYDOL AND BACHEIDDON.**—Prosser's level has been driven 6 fms. further east along the north side of the lode; the ground continues favourable for driving; this level, the greatest of our underground undertakings, is fast approaching completion. In a month we may reasonably expect to be under Davie's level, where the ore first forms. In the end of the Smithy level 6½ fms. of orey ground was stoped; this is not so productive as it was, caused by a bar of poor ground running along the stope; after cutting through it I expect it will improve. In Davie's level, 6 fms. of the lode was taken down for a width of 9 ft. on the south side of the level. Several branches of lead were found in the lode, making a total productive width of 13 ft.; the lode contains ore for 10 fms. in length, but is much richer in the end of the level. Fox's new level has been driven 5 fms. further on the south side of the lode; we do not take down any of the latter, our object being to push on as quick as possible. The total quantity of ground driven and stoped in Rhoswydol is 23½ fms.—Bacheiddon Mine: Shaft No. 1 has been sunk 1 fm. 5 ft. 6 in. deeper, and driven 3 fms. 5 ft. east and west on the course of the lode; the sinking was in a good course of ore. In driving west we did not take down much of the lode, our chief object being to drive to shaft No. 2, which was accomplished; in driving east into the hill the lode continues to produce excellent ore; it is well mixed up with veinstone, which is the best proof of its making ore in depth. Before communicating with No. 2 shaft the men were much impeded by water, which they are now quite free from. Shaft No. 2 has been sunk 1 fm. 3 ft 6 in. in rich lead ore, and driven 1 fm. 4 ft. east, when shaft No. 1 was communicated with. Shaft No. 3 has been driven east and west 4 fms. 4 ft., and communicated with Nos. 2 and 4; this shaft was sunk on the richest branch of lead in the whole mine. I said in my last report it would yield 20 tons of lead; I am now able to say it has done so; the lead is still exceedingly rich in the bottom of the level. In driving west the level went under the large stone of ore, and we discovered another nearly, but not quite, as large on the east side of the first. Under these large stones of ore there is a fine and rich lode; we may call it one bunch of ore, 6 fms. long, and it is under this the 20 fm. level north will cut the lode. I have also let a shaft to sink. Shaft No. 4 has been sunk 1 fathoms 3 feet, and driven east and west 4 fms. 3 ft., communicating with shaft No. 3 and the adit level. This driving is in a poorer part of the mine than the other workings; it is not quite unproductive, but is worth stoping; the reason is that the head appears to have taken a greater cover of decomposed lode; in the bottom of the level it opens much richer. At shaft No. 5, 2 fms. have been driven south, to meet the 5 fm. adit level, and the shaft sunk a little deeper, to make it level with the adit. The 5 fathom adit level has been driven 3 fms. 4 ft north, and cut shaft No. 5; this level has been driven east 3 fms. 4 ft., and 5 fms. 4 ft. of orey ground has been stoped in the back. The east driving is something similar to shaft No. 4; the west driving is much better. Since measuring day the 5 fm. level has been driven a few fathoms further, and met the level driving from shaft No. 6, therefore there is now an exit for all the ore, water, &c., from all the shafts. A tramway is laid down, to convey the ore to the new picking-house. In shaft No. 6, 15 fms. were driven east and west, and 4½ fms. of orey ground stoped. Near the west end a cross-course came in, which hove the lode south. We have since discovered the lode, but it does not make ore in the west end, therefore I shall not drive further west. On the east side of the cross-course there is a fine course of lead ore, more or less productive as far as shaft No. 5—say, 20 fms. long; in the middle of this, in the bottom of the level, there is as rich a bunch of ore as any in the mine. Our present operations are—six miners driving the 5 fathom level east beyond shaft No. 1, five stoping orey ground, six to sink shaft No. 3, four stoping orey ground between shafts No. 3 and 4, six to sink shaft No. 5, five to stope orey ground in the back of the 5 fm. level, eight to sink shaft No. 6, and stope the back of the level, and forty labourers to attend on them. The 20 fm. level north has been driven south 26 fms.; this is extremely easy ground to drive. The facilities for driving are increased by the men intersecting several fissures in the mountain, 2 to 4 in. wide, running up to grass, and down to an unknown depth. The 20 fm level south has been driven 11 fms. north; the ground is not so easy to drive as on the north side of the hill. I have had a party of men costeaning for several days on the west side of the mine. We discovered nothing new, but in cutting the leat, to convey the water to our new picking-house, we have discovered a very promising lode, well worth a trial. We have not been able to avail ourselves of the new picking-house more than one day, on account of the very stormy weather. The quantity of ore we have actually dressed is about 15 tons, but what with the Christmas holidays, the frost, and the stormy weather on the exposed situations of Bacheiddon Mountain, we have only had about ten working days since our last shipment. The produce dressed since the discovery has been 40 tons, and this was nearly all in large stones of ore, which we were able to pick and crush at the mil; nearly the whole of the smalls are left untouched, and several large piles are lying on bank. Now that we have finished the tramway to the new picking-house, we shall dress every kind of ore. I have engaged the *Dart* to take from 20 to 23 tons, which I shall ship as quick as possible.

**RIX HILL.**—Our pitches on the new south lode are looking well, and we have good reason to expect the lode rich for tin when intersected in the 40 this month; and also the 28 south of engine. Our Nov. and Dec. tin will be about 10 tons, and will be ready, if possible, for February ticketing.

**SOUTH TOLGUS.**—The prospects are better than they were. The 66 fm. level cross-cut has intersected the south part of the north lode, where it is looking more promising than in any level above on the north lode; the 66 east, on the south lode, is improved, producing ½ ton of good ore per fm.; in the 66 west the lode is small, with ore and mundic, in a very favourable channel of ground. The 54 west, on Youren's lode, is yielding 1 ton of good ore per fm. The 42 east, on south lode, is looking better than for 20 fms. past; a winze from the 42 west to the 54, on Youren's lode, is yielding ½ ton per fm.; the 42 fm. level is 36 fms. west of this winze, ore all the way, and the end producing ½ ton per fm. The winze from the 32 is worth 2 tons per fm.; the end of the 32 west, on Youren's lode, is yielding 2 tons per fm. In the adit east the lode is 1 ft. wide, with ore in it. Our sampling is about 190 tons of good ore.

**SOUTH TRELAWNY.**—I have taken four men from the westerly lode, and put them to drive north and cut through the slide east of shaft, which appears larger at this point than at the 50 above, and is letting down water. Two men are driving north in the 60. The cross-cut west has not as yet intersected the lode, the ground is sparry for cutting, being mixed up with capels.

**SOUTH WALES.**—We have set Thomas's shaft to sink below the 12 fm. level by nine men, 3 fms., or the month, at 10*l.* 10*s.* per fm.

**TAMAR SILVER-LEAD.**—The engine-shaft is sunk 9 fms. 2 ft. below the 205; in this level south the lode is 9 in. wide, good saving work, the end turning out exceedingly well. In the 190 end the lode is disordered by small cross-courses. In the 175 the lode is 18 in. wide, and opening good profitable ground. At Spurgin's shaft, in the 175, driving north and south, the lode is about 2 ft. wide, and passing through good tribute ground. In the 160 the lode is 2½ ft. wide, composed of capel and fluor-spar, with good stones of ore. At the north mine, in the 90, the lode is 5 ft. wide, with ore disseminated throughout. In the 80 the lode is 18 in. wide, good saving work; both of these ends are leaving backs which will be taken away at a profit; in the winze sinking in the bottom of the 80 the lode is 1 ft. wide, 6 in. of which is good work. We sampled on Saturday, the 3d inst., computed 57 tons of rich silver-lead ores, samples of which have been sent to the different smelters.

**TINCROFT.**—Highburrow tin lode, in the engine-shaft, sinking below the 152, is 4 feet wide, and worth 30*l.* per fathom. In the 152 fathom level driving east we have intersected the cross-course, and expect to get through it in a few days. In the 142, east of Martin's east shaft, the lode is 4 feet wide, worth 11*l.* per fm. for tin and copper. In the 132 east the lode is 3½ feet wide, worth 12*l.* per fm.; the stopes in the back are worth 18*l.* per fm. Chapple's lode, in the 120 fm. level, west of downright shaft, is 6 ft. wide, worth 20*l.* per fm. for copper. In the 110 driving west the lode is 3 ft. wide, worth 6*l.* per fm. for tin and copper; in the winze sinking below this level the lode is 3 ft. wide, worth 5*l.* per fm. for copper. In the 100 driving west the lode is 4 feet wide, worth 6*l.* per fm. for tin and copper. Dunkin's lode, in the 100 fm. level, driving west of engine-shaft, is 4 feet wide, producing good stones of tin and copper ore; by extending this end about 6 fms. further, we shall got under the run of ore ground seen in the bottom of the 90; the lode in the latter end, west on the south part of Dunkin's lode, is 6 feet wide, worth 35*l.* per fm. for copper. We have not as yet cut the lode in the 90 or 84 cross-cuts, but expect to cut it shortly in the former. The pitches on this lode still continue to look well. At North Tincroft, in the 120 fm level, east of the engine-shaft, the lode is 2 feet wide, worth 7*l.* per fm. for copper; in the west end the lode is 2½ ft. wide, worth 6*l.* per fm. In the 110 east the lode is 2 feet wide, producing stones of ore; in the west end the lode is 4 feet wide, worth 12*l.* per fm. for copper. In the 100 fm level, east of Willoughby's shaft, the lode is 2 feet wide, worth 4*l.* per fm. for tin and copper; in the same level, west of engine-shaft, the lode is 8 feet wide, worth 13*l.* per fm. for copper. In Prideaux's winze, sinking below the 90 fm. level, the lode is 5 feet wide, worth 28*l.* per fm. for copper. In the 24 east, at Stainsby's, the caunter lode is 1½ foot wide, worth 18*l.* per fm. for copper. The mine, on the whole, is looking well.

**TREBELL CONSOLS.**—From a letter received by the secretary from the engineer, we find that the engine has been shipped, and has reached Dartmouth; but on account of the weather, they cannot proceed; but no time will be lost in the erection, immediately it arrives on the mine.

**TRELAWNY.**—Trelawny shaft is down 10½ fms. below the 107 fathom level, and the ground is very moderate for sinking. In the north end, in the 107 fm. level, the lode is 3 ft. wide, and worth 8*l.* per fm.; in the south end it is 2 ft. wide, and worth 6*l.* per fm. In the 92 fm. level, in the north end, the lode is 3 ft. wide, and worth 8*l.* per fm.; in the south end it is 3 ft. wide, and worth 10*l.* per fm. In the north end, in the 82 fm. level, the lode is 3 ft. wide, and worth 11*l.* per fm. At the north mine, in the 78 end, north of Trehane, the lode is 2 ft. wide, and worth 3*l.* per fm. In the 68 end, north of ditto, the lode is 3 ft. wide, but poor. In the 68 end, south of Smith's shaft, the lode is 1½ ft. wide, and worth 13*l.* per fm. In the 68 end, north of ditto, the lode is 3 ft. wide, and worth 10*l.* per fm. In the 55 end north the lode is composed of several branches, containing some lead. The stopes and pitches at the north mine are looking well, and in the south mine much as usual.

**TRELEIGH CONSOLS.**—Christoe Lode: In the 100 fm. level, west of Garden's, the lode is 18 in. wide, with stones of ore. In the 90 west the lode is 3 ft wide, but little ore; in the stopes below, west of Arthur's lode, lode 3 ft. wide, worth 23*l.* per fm.; in the stopes above, east of Woolcock's rise, lode 2 ft. wide, worth 16*l.* per fm. In the 90, east of Christoe, lode 15 in. wide, with stones of ore. Parent Lode: the 64 cross-cut, north of Parent shaft, is driving to cut Parent lode. The 64 cross-cut south driving to cut the Middle lode.

**TYWARNHAYLE.**—About 600 tons of ore will be sampled on the 27th inst., but the workings are being gradually suspended. The Wheal Clarence lead lode in Nancekuke still continues productive, and a large quantity of ore ground is being laid open by the various levels, which will pay for working on tribute. The next sampling will be in a fortnight, and will be about 50 tons of lead ore.

**UNITY CONSOLS.**—Gray's engine-shaft: We have not made any grea progress at the 70 fm. level during the last week, in consequence of large quantities of water coming from the lode in the east and west ends, which overpowered the lifts. The men have been employed for the last few days cutting a plat at this level, and as soon as we get in a larger lift we shall be able to open east and west upon the lode, which is from 5 to 6 feet wide, producing rich work for tin. In the 60 fm. level east the lode is 2 feet wide, and much improved since last week. In the rise in the back of the 60 west the lode is 1½ ft. wide, worth 4*l.* per fm. for tin. In the 50 fm. level west the lode is 2 ft. wide, and, at present, unproductive. In the 40 fathom level east there is no change worth noticing since my last report. In the rise in the 30 fm. level, east of Buckley's shaft, the lode is 1½ foot wide, worth about 3*l.* per fm. for tin; in the 30 west the lode in the end is 1½ foot wide, worth 8*l.* per fm. for tin. We have cut the lode 18 fms. below the adit in Tucker's shaft (west of Gray's) since my last report; the lode is about 1½ ft. wide, producing good work for tin, and worth 6*l.* per fathom. At Lambo, Kenworthy's engine-shaft, the cross-cut in the 40 fm. level is progressing most satisfactorily, and the ground is still favourable for driving; in the 40 end east the lode is 9 in. wide, and worth 5*l.* per fathom for copper. At Wheal Kitty very little has been done in the last week, except clearing away the attle left by the old workers, erecting a whim, and other surface operations. We have commenced driving the 40 fm. level west, and there are fair prospects of a good return from this quarter. The pitches at Hampton's and other parts of the mine are looking very well. The building an engine-house for strakes is going on rapidly, and there is no doubt but it will be completed in the time specified in the contract. We shall sample 90 tons of copper ore to-morrow.

**WEST BASSET.**—We have set the engine-shaft to sink under the 84 fm. level by nine men; the lode is 4 ft. wide, with good stones of ore; in the 84 fathom level driving east, the lode is 3 feet wide, with very good stones of ore in the back of the end; in the 84 fm. level west the lode is 3 ft. wide; in the course of the week this end has produced some very good ore. In the 52 fm. level, east of the new shaft, the lode is 18 in. wide, very kindly. In the 42 fm. level, east of the new shaft, the lode is 18 in. wide, producing good stones of ore. We have 53 men employed on tutwork, 53 of them are driving and sinking on the course of the different lodes. The new shaft is holed from the 20 to the 30 fm. level; the men are now engaged in dividing, casing, and fixing footway below the level.

**WEST CALLINGTON.**—We have added very little in depth to our engine-shafts during the last week, in consequence of being obliged to stop the engine for two days, for the purpose of cleansing the boiler and flues. At the old mine, the ground continues just as last reported, and the lode is not as yet in the shaft. At the new mine, we have increased our depth about 3 ft. In driving south on the cross-course we have intersected an east and west lode in two parts, of 4 and 7 in. wide, composed of spar and mundic; between the two parts is a course of soft elvan, about 2 ft wide. We are still driving on the cross-course, which is considerably enlarged, and presenting a very promising appearance, nearly 2 ft. wide, composed of more spar than usual, with mundic and flookan.

**WESTON.**—There is some slight alteration in Cross's level for the better, though still in the greenstone rock.

**WEST POLGOOTH.**—The engine-shaft is nearly down to the 22 fathom level, and have little doubt but that we shall cut a good lode at the bottom. The tributers have been all the month clearing up the old men's workings, and I am glad to tell you that the lode is 2 ft. wide, and worth about 6 cwts. of black tin to the 100 sacks. The stamps will be at work by the end of next week, and would have been stamping now, but the weather has been so bad that the men have not been able to work much out of doors, which has caused the delay.

**WEST WHEAL ROSE.**—Since my last report we have intersected a caunter vein or slide, which has disordered the lode, and hove it a few inches. The vein we have cut through varies from 4 to 9 or 10 inches in width, and the country around the lode is rather hard at present. The north and south lode is again forming itself in regular order as it recedes from the slide. There is no doubt that in depth these veins will be of great service in making the lode productive of mineral. Several of these veins we have already cut through in the adit level, and around most of them we have had lead.

**WEST WHEAL RUSSELL.**—No improvement has taken place in the 37 fm. level driving west from the engine shaft since last week's report; at present the lode is about 1½ ft. wide, producing occasional stones of ore. The lode in the adit level, driving west from Bayley's shaft, is 3 ft. wide, still producing good stones of ore; the lode in Bayley's shaft, sinking below the adit level, has still a most promising appearance—it being 3 feet big, yielding beautiful stones of ore throughout the width of the lode, and is saving work.

**WEST WHEAL TOWAN.**—The west shaft at Kerriack Point is completed to the 15 fm. level—the water is very little; the lode in the winze below this level is still very promising, and improving a little. The 15 and 25 fathom levels, east and west of Caroline's shaft, are still looking well, and all the ground in these levels will pay for working on tribute. The ground in the cross-cut north, towards Great Towan lode, is a little improved for driving. The stamps are now working night and day, and a small parcel of tin will be ready for the smelting-house in a fortnight.

**WHEAL ARTHUR.**—The lode in the winze is 4 ft. wide, and a kindlier one I never saw, but poor for copper at present, but by the appearance of the lode I think we are very near a good course of ore. I wish to sink the winze down to the 35 fathom level as quick as possible, as we shall be able to break the ore for one-half the money after that work is completed to what we can now, as we have a very good course of ore in the stopes already discovered. I am daily expecting to cut the lode in the 35 fm. level, as the ground is almost spent; according to the underlay of the lode, I have every reason to believe we shall have a good one when cut, as we are daily discovering branches and traces of ore as we get nearer the lode. On Friday last we discovered a branch of copper ore in the 50 fm. level north, which gives me every reason to believe we shall have a good lode when cut in that level. The ground in the 50 fm. level south continues just the same as it has for some weeks past; we are pressing on this level as fast as possible, in order to cut the great south lode, which I hope we are not many fathoms from.

**WHEAL CATHERINE.**—The new lode discovered in the adit level is 2 ft. wide, with regular walls, composed of mundic, prian, flookan, and spar, and is driving by four men at 28*s.* per fm. Our shaft is sunk 11 fathoms from surface, which is 6 feet under the adit level. We purpose getting down 6 fms. more, and then drive to cut the lode.

**WHEAL CREBOR.**—The lode in the winze is at present disordered with a horse of killas. The lode in the adit end is still large. The same may be said of the lode in the 12 end. The 24 end is driving between two lodes, which appear to be coming together fast towards the cross-course. The water is much increased in the shaft with these heavy rains; our dressing is also greatly retarded, but we shall get ready a sampling as promised this time. The engine, &c., works well.

**WHEAL EDWARD.**—The heavy rains of late have caused an increase of water in the shaft. Yesterday (Jan. 14) the shaft was measured in my presence, 7 fms. from surface. We hope in 3 fms. more to cut the lode, which, it is anticipated, will be done by the meeting on the 5th February.

**WHEAL FANNY (BRIDESTOWE).**—A winze on the course of the lode has been commenced from the 17, or adit level, from which fine lead is being raised, and little doubt exists as to the success of this adventure. Captain Wm. Lean, of Holmbush Mine, has lately inspected Wheal Fanny, and states "that many hundreds of fathoms of ground on the Callington and Holmbush lead lode have been taken away by the tributers, where the lode would not produce more lead than this one (Wheal Fanny); the ground is soft and congenial for that mineral, therefore, it is less expensive for being wrought." He adds that the "facilities for exploring them are great, there being a first-rate water-wheel at work, 40 feet diameter and 4 feet breast, with a full supply of water to work it, and which is of sufficient power to put the mine to a great depth. Captain Opie, of Lamheroos Wheal Maria, also reports that the middle lode, "so far as it has been opened, shows profitable tribute ground for lead;" and speaks further in the strongest terms of the concern. It may be mentioned, that the above remarks refer to the lode only 17 fms. from surface: this is the great advantage in lead mines—that the mineral is found at a much shallower depth than copper, and that the ground is so soft, and, consequently, can be worked cheaply. The abundance of water-power is an additional advantage at Wheal Fanny.

**WHEAL FORTUNE.**—We have driven on the course of No. 1 lode about 2 fms., and find it greatly improved; so also is No. 2, from which we have broken some very fine stones of yellow copper; it is also strongly impregnated with the sulphuret of lead. In cutting through No. 3 lode we intersected a caunter lode, bearing about north-west and south-east. We are now driving on No. 1 lode, which is improving every foot we drive, as we are gaining deeper backs, which shows the necessity of sinking.

**WHEAL HAMLYN.**—The malleable stuff is so mixed up with heavy waste, such as capels, &c., and the malleable itself with sugary spar, which makes it as tight as the capels, consequently we cannot separate it by jigging, and this we could not ascertain until we had tried it, but if we could have cleaned it with sieves, as many, with myself, supposed we could, we should have sold ore this ore enough to pay one month's cost; but, notwithstanding, I think by getting it pulverised with a stamp, we can clean it; if so I believe we can raise hundreds of tons of malleable stuff in a short time, especially as it appears to be increasing in quantity and quality; every person who sees it appears to be

astonished to see so much malleable mixed with greens, capels, &c., and say without an hesitation that they never saw anything like it before; and the moss copper, they say, is beautiful. If this appearance is not proceeding from a large quantity of ore, and very near, what should it proceed from? We have discovered in a new incline, which Messrs. Ham and Co. are putting down into the quarry, the caunter, which is the B lode named in the plan, and although it is but 3 fms. deep it produces very rich stones of tin ore in the soft peach. I should think if it continues it could be worked at 12s. in 1l. I never saw richer looking tin, the lode is also impregnated with very rich yellow copper ore, and as the ground is very soft going east we have commenced to drive north-west on the course of a caunter lode which we have recently discovered in the quarry level, where the malleable, &c., is; we have about 14 fms. to drive before we cut the B lode, ground about 10s. per fathom. This level will take the lode 10 fms. deeper than the incline, where I believe we shall have a very favourable change. Since we have sunk to the deep adit on Fuller's lode we have driven east 6 ft., and find it to be rather hard, but mixed with a quantity of jack and mundic, thickly impregnated with lead. As we have now got into the killas on Phillips's lode, which is very soft and large, I would propose, as Fuller's lode is so near the lime rock, to stop that part for the present, and put all the force we can, and drive on Phillips's 10 fms. further, so as to get into the clean killas, and then drive south and cut Fuller's, which will be about 25 fathoms, and about the same distance from surface, where I have no reason to doubt but we shall have on those two lodes something very good.

**WHEAL LANGFORD AND BARING UNITED.**—We are getting on with the stope in the bottom of the cross-cut in Dare's shaft as fast as possible, and hope in my next to give some information about the 10 fm. level going east and the end going west; the winze, at the point of the horse, is cleared about 3½ fms. deep, and we are pleased to find we have whole ground in the western end, both on the south and north silver lode, and the copper standing entire. We have not taken down any of our silver lode since my last.

**WHEAL MAY.**—The lode in the 20 fathom level is 20 in. wide, looking very kindly, producing good stones of ore. We are getting on with the rise as fast as possible to ventilate the mine from the 10 to the 20 fm. level; after that is completed I intend driving south in the 20 fm. level in order to cut another lode, as it will be not more than 15 ft. to drive to cut the south lode, and will give us an idea which lode to work on, or work on both. I have sent two samples of our ore to Sims, Willyams, and Co., of Truro, desiring them to inform me what they will give per ton for each parcel, as they are the only company who purchase silver and copper mixed together, like Wheal May ore is. The Tamar Company does not like to have anything to do with it, as ther is too much copper in it for their furnaces.

**WHEAL TOM (DEER PARK).**—The splendid 50-in. cylinder engine, built by J. E. Mare, of Plymouth, for this mine, was started on Thursday, the 8th instant, in the presence of the engineer, the gentlemen of the vicinity, and a large concourse of people who were drawn together to witness the ceremony. The engine went to work in excellent style, amidst considerable cheering. It reflects great credit on Mr. Mare, the founder, and on Capt. R. Jenkins, the engineer, who has superintended its erection; and it was stated by all parties present that they had never seen an engine work so easy. The mine was speedily forked to the 27 fm. level. The whole of the works and buildings are executed in a substantial and superior manner, and drew forth the approval of all present. The company adjourned to Golding's Hotel, Callington, and partook of a dinner, served in Mr. Golding's usual way (which reflects much credit on the management); and after the usual toasts were drank, and on the health of the engineers being proposed, Mr Mare, jun., returned thanks, and stated that this was the largest pumping-engine ever built in Devon, and the first 50-in. cylinder which had come out of their foundry. Capt. Jenkins remarked he had erected 300 engines in Cornwall, not one of which would surpass the present one for strength and durability. Amidst toasts, &c., applicable to the meeting the evening passed off with the greatest harmony and satisfaction to all present.

**WHEAL TREASURY.**—*Dec.* 22.—Since our last report, we have sampled upwards of 600 sacks of tinstuff and some copper. We have not been raising much copper lately, though there are 2 tons now at surface, and we shall soon begin to increase our quantity. We have four pares of men working on tin ground, but we are in want of a horse whim and rope to place on Bate's shaft, in order to draw our tin and other stuff from the 10 fm. level under the adit, which will prove a great saving, instead of drawing it from the winze to adit by manual labour. We would also recommend the driving on the course of the new lode, south of Oatey's shaft, which we sunk on 20 fms. from surface in the summer, and which carries a beautiful gossan on the back for 15 fms. deep; this lode, we believe, will turn out some good copper west from the shaft to the cross-course. The discovery in West Wheal Treasury, on their new lode, is about 60 fathoms from our sett, and it is stated by the men who are working there that they will raise upwards of 100 tons this month at 1s. in 1l. We have discovered this lode in our sett on the backs; it is 20 in. wide, carrying a very fine gossan. We have about 6 fms. to drive in the 20 to intersect it, where we hope to find it productive, it being situated in that channel where this mine on a former working made a great part of its riches, and which is only distant from Treasury lode about 14 fms. At this point various cross-cuts can be driven at an expense of from 20l. to 30l. each level, as soon as the water is drained. We strongly recommend the immediate purchase of an engine of sufficient power to drain the mine to the bottom; this being done, we shall soon, no doubt, be in receipt of large returns, both of copper and tin. At our meeting of adventurers, held at Crotch's Hotel, Hayle, this day, the accounts showed a balance of 7l. 6s. 6d. in favour of the adventurers.

— *January* 14.—We have put a pare of men to drive on the course of the new lode under the gossan about 5 fathoms; it is in a beautiful lode, producing some very fine stones of copper, with every indication of being productive between the present end and the cross-course, the distance of which is about 30 fms. We have put men to clear the level on Treasury lode so as to get under the discovery we made east on Drow Ilas lode in whole ground. We have the same number of hands employed in raising tinstuff, and have placed on Bate's shaft machinery to draw it up.

**WHEAL WILLIAMS.**—The lode in the south engine-shaft is improved since my last, its size being from 3 to 4 ft. wide, composed of capels, spar, and mundic, with some stones of ore of good quality. In the 30 fm. level east the lode is much the same as last advised. But little has been done in the cutting down of the middle lode shaft, owing to the same reasons stated in my last; the lode in which, however, so far as cut down, is altogether of a most promising character, being composed of a very fine capel, quartz, mundic, prian, and stones of good quality ore. At the north lode engine-shaft, the water is drained 15 fms., and hope, by another week, to have it in fork to the bottom, and report in my next the character of the lode and state of the old workings. The forking of this shaft does not appear to drain the middle lode; I should, therefore, recommend at once that a line of rods be attached to the engine, for the purpose of forking the water in the middle lode shaft, and with a view to deeper sinking, the expense of which will be but little.

**WHEAL WREY CONSOLS.**—In the past week we have driven on Wrey's lode 3 fathoms, in a fine gossan, producing large stones of silver-lead ore, with fine particles through the whole mass, which is from 4 to 5 ft. wide. From these extraordinary features we are led to conclude there is a good bunch of ore under this back of orey gossan; and from the numerous conjunctions of lodes within a fair distance for an engine-shaft to command the whole, there can be no doubt but this will prove a rich and profitable mine.

**WHEAL ZION.**—The engine lately purchased of the West Par Consols Company is now placed in the hands of Mr. William Mathews, engineer of Devon Great Consols, to take down and to erect on this mine in six weeks after the engine house is complete. The foundation of the engine-house is cleared out, and the masonry set per perch, to be finished in six weeks from commencement. A good quarry is being obtained in the same field, only 30 or 40 yards from the engine-house. A launderage is provided for Lemon's shaft, to prevent further inundations, from the adjoining sett, of the surface water during heavy showers, which finds its way down on the north wall of the champion lode, and where it is intersected by Lemon's shaft the outlet is found to be.

**WOOD MINE.**—Since my last, we have sunk the south winze 9 ft. below the adit level, and find the lode to be about the same size as in that level—18 in. with good branches of lead. In the north winze the men have driven south about 15 ft. in a very promising lode: it is 15 in. wide, with good stones of lead. Our whim will go to work to-day (12th Jan.) on the old whim shaft, where we shall put six men to clear up and secure it to the said shaft in the adit level as fast as possible.

[The reports from the FOREIGN MINES commence on the 27th page.]

**EXTINGUISHING FIRES IN COLLIERIES.**—We regret to learn that Mr. Gurney's plan of extinguishing fires in coal mines by the injection of carbonic acid, has in the case of the Great Lever Colliery, near Bolton, proved a failure. A correspondent informs us that the method was in operation from Nov. 10th to Dec. 30th—a period of 50 days and nights. At the expiration of that time, the shafts were opened with a view to cool and clear the workings from foul air. On the 7th inst., a number of men went down the mine to inspect, and, if safe, to make preparations for re-working. They proceeded to that part of the mine where the fire first occured, when, to their utter astonishment, they saw, about 60 yards before them, the fire raging as fierce, if not more so, as when it first originated. They hastened out of the mine and informed the manager, who immediately caused it to be flooded by turning water down the shafts. We should think there must have been something erroneous in the mode of application of the apparatus in this case, as in larger conflagrations, one which had been burning 20 years, and more extensive collieries, the plan has been so signally successful.

**DAMAGES FOR DEATH IN A COAL PIT.**—In the case of the death of James Marshall, a collier, by a stone falling down the shaft of a colliery belonging to a Mr. Robert Stewart, of Glasgow, and striking him upon the head, the widow, Mrs. Marshall, commenced an action for damages, in her own name and that of her two children, Janet and Jemima. The damages were laid at 400l. to the widow and 100l. for each of the children. It appears that on the 11th Jan., 1849, the deceased was coming up the shaft when a stone fell from the side of it, knocked him out of the cage, down the shaft, and killed him. The case was recently tried in the Second Division of the Court of Session before Lord Justice Clerk and a jury. The defence was that there was sufficient lining to the shaft, but that if there was insufficient, a person named Craig was liable as a contractor. The jury found that deceased had no proper ground for leaving his work, but that the pit was in an insecure state, and found defendant liable to damages 100l. to the widow and 50l. the two children, Craig being a regular servant to defendant. This verdict is really in favour of both parties, and the result depends on the ultimate decision of the Court on the points of Scotch law.

**ON THE COMPOSITION OF THE GASES EVOLVED IN THE PRODUCTION OF COKE FROM COAL.**—The question might arise whether in the formation of coke from coal in a furnace, the air which enters the furnace gives up its oxygen to the matters which are evolved in the gaseous state, or to the solid carbon; and again, whether the oxygen forms carbonic oxide or carbonic acid. M. Ebelmen examined the composition of the gases of the coke-ovens at Seraing, and found that more than two-thirds of the hydrogen of the coal is burned, the remainder existing in the evolved gaseous mixture. The quantity of carbonic acid is three times that of the carbonic oxide.—M. EBELMEN: *Comptes Rendus.*

# Current Prices of Metals, Stocks, & Shares

*METAL MARKET, London, January* 16, 1852.

| | | | |
|---|---|---|---|
| **ENGLISH IRON.** *a* | *per ton* | | |
| Bar, bolt, & square, London | £4 17 6 | -5 0 | 0 |
| Nail rods | 5 17 6 | -6 0 | 0 |
| Hoops | 6 12 6 | -6 17 | 6 |
| Sheets (singles) | 7 7 6 | -7 12 | 6 |
| Bars, at Cardiff & Newport | 4 7 6 | -4 10 | 0 |
| Refined metal, Wales* | 3 0 0 | -3 5 | |
| Do. anthracite* | 3 10 0 | | |
| Pigs in Wales | 3 0 0 | | |
| Do. do. forge | 2 5 | -2 10 | |
| Do., No. 1, Clyde. *net cash* | 1 18 0 | -1 19 | |
| Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport* | 3 10 0 | | |
| Do., do., for tin-plates, boiler plates, &c., ditto | 4 10 0 | | |
| Stirling's Patent Toughened Pigs } in Glasgow | 2 10 0 | | |
| Toughened Pigs } in Wales | 3 10 | -3 15 | |
| Staffordshire bars, at the works | 5 5 0 | | |
| Rails (Staffordshire) | 5 0 | -5 5 | |
| Chairs (Clyde) | 4 0 0 | | |
| **FOREIGN IRON.** *b* | | | |
| Swedish | 11 0 | -11 10 | |
| CCND | 17 0 0 | | |
| PSI | — | | |
| Gourieff | — | | |
| Indian Charcoal Pigs in London | 5 10 0 | | |
| **FOREIGN STEEL.** *c* | | | |
| Swedish keg | 15 0 0 | | |
| Ditto faggot | 15 0 0 | | |
| **ENGLISH COPPER.** *d* | | | |
| Sheets, sheathing, & bolts, *p. lb.* | 0 0 | 10 | |
| Tough cake *per ton* | 88 10 0 | | |
| Tile | £87 10 | 0 | |
| Old copper *e* *per lb.* | 9*d* | | |
| Yellow Metal Sheathing | 8½*d* | | |
| Wetterstedt's Pat. Metal | *Cwt.* 1 11 | 0 | |
| **FOREIGN COPPER.** *f* | | | |
| South American, in bond | 78 0 | 0 | |
| **ENGLISH LEAD.** *g* | | | |
| Pig *per ton* | 16 5 | -16 10 | |
| Sheet | 17 10 | 0 | |
| Pipe | 18 0 | 0 | |
| Red lead | 19 10 | 0 | |
| White ditto | 25 0 | 0 | |
| Patent shot | 21 0 | 0 | |
| **FOREIGN LEAD.** *h* | | | |
| Spanish, in bond | 15 17 | 6 | |
| **ENGLISH TIN.** *i* | | | |
| Block *per cwt.* | 4 9 | 0 | |
| Bar | 4 10 | 0 | |
| Refined | 4 12 | 0 | |
| **FOREIGN TIN** *k* | | | |
| Banca, H. C. | 4 3 | 6 | |
| Straits | 4 2 | 6 | |
| **TIN-PLATES.** *l* | | | |
| IC Coke *per box* | 1 3 | 6 | |
| IC Charcoal | 1 8 6 | -1 9 | |
| IX ditto | 1 14 | 6 | |
| **SPELTER.** *m* | | | |
| Plates, warehoused *per ton* | 15 7 | 6 | |
| Ditto, to arrive | 15 15 | 0 | |
| **ZINC.** *n* | | | |
| English sheet *per ton* | 20 0 | 0 | |
| **QUICKSILVER** *o* *per lb.* | 3*s* 2*d*. | | |

*Terms.*—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct; dis.; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash. *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

* Cold-blast, free on board in Wales. † Dis. for cash in 14 days, 10 per cent.

BAR-IRON continues very quiet; about 1500 tons have been sold for shipment at a low figure.

RAILS.—Without alteration.

SCOTCH PIG-IRON has been in demand for forward deliveries at 6d. per ton below the selling prices. A parcel has been sold at 36s. 6d. neit, money down; there is none offering, however, under 37s. cash in a few days; and 37s. 6d. to 38s. three months open. By the accounts from the United States, sales of Scotch pig had been made at $18 75 cents to $19 cash; and $19 50 cents to $20 six months. English bars quoted $34 to $34½.

STAFFORDSHIRE IRON.—Without alteration.

SPELTER.—No transactions to report.—LEAD is very flat.

ENGLISH TIN is steady.—In EAST INDIA TIN the market is quiet.

TIN-PLATES.—Coke may be bought a trifle lower; sales have been made at 23s. Charcoal, best quality, is selling at 29s. per box.

BIRMINGHAM, JAN. 15.—The quarterly meetings of the ironmasters, now terminated have, upon the whole, been characterised by even more cheering prospects than we were able to report as the result of the meetings of the trade here last Thursday. At Dudley orders are said to have been given more freely, and great hopes are entertained of an improvement in prices early in the spring. There is, perhaps, not another article of large consumption where the price has so widely alternated as it has done with regard to iron; there are persons living who have seen pig-iron as low as 43s., and again ascend to 13l. per ton, while Staffordshire bars have been as high as 23l., dropping therefrom at a swoop to 17l., when everybody predicted ruin to the ironmasters, although the same description of iron has since fallen to something like one-third of the latter price. A subject much discussed at these meetings of the trade has been the discovery of ironstone in Northamptonshire, especially in the immediate neighbourhood of the county town. The Staffordshire ironmastes have already purchased largely, for the purpose of consuming it in their works. Very fine specimens of the iron ore have been found on the estate of Major-General Arbuthnot; after assay it was found to yield 48 per cent. of pig iron, whilst the pure character of the mineral renders it of great value for amalgamating with the ironstone of other districts. It is needless to point out that this discovery will be of great value to the Staffordshire iron-works in affording them a large supply of good mineral, and thus enable them more successfully to compete with the Scotch and Welsh makers.

GLASGOW, JAN. 15.—The market for pig iron has remained dull during the whole of this week; and as long as the very large make continues, it is almost impossible that much improvement can occur, notwithstanding the prices being as low as almost ever known, and full 16 per cent. lower than at the beginning of last year. At the present moment the trade is quite unremunerating, and it is a matter of astonishment how the production is carried on, but the Scotch ironmasters will not reduce the make, unless the English and Welsh join in one general move for this object.

| | | | |
|---|---|---|---|
| No. 1, good brands, free on board here | 37s. 0d. | per ton cash. | |
| No. 3, ditto | ditto | 36s. 0d. | ditto |
| Mixed Nos. | ditto | 36s. 9d. | ditto |

Gartsherrie, Coltness, and Sommerlee are very scarce, and command a higher price comparatively than usual.

MINES.—The present week has passed off quietly as regards the actual amount of transactions on the Exchange, but we understand privately a considerable number of good shares have changed hands, amongst which the dividend mines predominate; and, with few exceptions, these shares are rising into notice, and will continue to do so, probably in proportion to their intrinsic worth, as a larger amount of capital is brought to act upon them through the medium of the Stock Exchange—several members of which body appear quite alive to the importance of this new branch of business, which we hail as a general good to the mining interest. The only items worth reporting in other mines are improvements announced in the lodes of Wheal Robins, Merllyn, Tregardock, and several newly-established concerns, and a rise in the value of the shares; whilst others, previously exaggerated, have undergone, and deservedly, great reductions in price, and scarcely a transaction has actually occurred in them for several weeks.

In the Metal Market, the demand for Copper and Tin is steady, and prices fully maintained. In Banca and Straits holders remain firm, in full expectation of a further advance.—Tin Plates are still in demand; charcoal, I.C., 29s., and coke 23s. per box.—Lead remains flat for the present.

In the Bullion Market,—Mexican and South American dollars, buyers at 4s. 10⅞ per oz. Bar silver containing gold, all gold above 5 grains in in the pound to be paid for, 5s. 1½d. per oz. standard. Bar silver without gold, 5s. 0⅜d. per oz. standard. Bar gold, 77s. 9d. per oz. standard. Columbian doubloons, 78s. 3d. per oz. Fine cake silver, 5s. 5½d. per oz. Market very flat.

The imports of ores and metals into London in the week ended January 15th have been as follows:—

| | |
|---|---|
| 1756 bars lead from Carthagena. | 500 lbs. (troy) gold dust from Sydney. |
| 2 boxes gold-dust from Port Philip. | 2 boxes specie from the Mauritius. |
| 430 barrels plumbago from Colombo. | 27 casks zinc from Ghent. |
| 9 boxes specie from Cape of Good Hope. | 500 slabs tin from Rotterdam. |
| 4624 plates zinc from Hamburg. | 85 boxes zinc from Antwerp. |
| 224 barrels oxide of zinc ditto | 215 barrels zinc nails ditto |
| 500 bags copper ore from Sydney. | 2 barrels specie from New York. |

The Glenmalure Mine (Wicklow) sold 43 tons of lead ore to the Panther Smelting Company, at 9l. 3s. per ton.

The ticketings for 100 tons of Newtonard's (Isle of Man) lead ore varied from 8l. 16s. per ton, by the Tamar Smelting Company, to 10l. 3s. 6d., by Sims, Willyams, Nevill, and Co.

At Esgair Llee a parcel of lead ore, 20 tons, were sampled on the 6th for sale on the 17th inst.

At Nanteos, 50 tons of lead ore were sampled on Tuesday.

Tamar Consols have sampled 57 tons of rich silver-lead ores.

At Goginan Mine, they sampled, on Tuesday last, 127 tons of silver lead ore. The pitches at level Newydd are improving, and about 30 tons of ore will be sampled there next week.

At Cwm Erfin, they expect to sample 32 tons of ore on Monday next.

At Wheal Clarence they expect in a fortnight to sample 50 tons of lead ore. The tributers are getting wages.

At Tywarnhayle Mines, about 600 tons of copper ore will be sampled on the 27th inst., but the workings are being gradually suspended.

At North Roskear meeting, on Monday, the accounts for Oct. and Nov. showed—Balance from last account, 1871l. 19s.; ores sold, 3592l. 4s. 10d. =5464l. 3s. 10d.—Mine costs and merchants' bills, 3068l. 19s. 3d.—by dividend of 4l. per share (560l.): leaves balance in favour, 1835l. 4s. 7d.

At East Wheal George quarterly meeting, on the 13th instant, the accounts showed—Balance last account, 465l. 16s. 10d.; October ore sold, 132l. 7s. 4d.; November and December (estimated at), 192l.=790l. 4s. 2d. —Costs for three months' working, 459l. 14s. 11d.; Mr. R. Adam's balance of per centage on ores sold, 173l. 4s.; London expenses, 12l. 10s.: leaving balance to next account, 144l. 15s. 3d. [The report will be found amongst the British Mines.]

At Wheal Treasury meeting, the accounts showed a balance in hand of 7l. 6s. 6d. They have four pares of men working on tin ground, 600 sacks of which and 2 tons of copper ore have been sold by them, and the quantities of both are increasing. The discovery in West Treasury, on the new lode, 60 fms. distance, is of importance, they having only 6 fms. cross-cut to drive in the 20 to intersect it, for which purpose a steam-engine is necessary, and, considering the general prospects of the mine, the sett appears richly to deserve the outlay.

At Tregorden Mine quarterly meeting, on the 7th instant, the accounts showed—Balance last account, 223l. 7s. 5d.; labour cost for September, 123l. 0s. 8d.; October, 139l. 7s. 11d.; November, 141l. 1s. 2d.; materials, 108l. 16s. 1d.; lord's dues, 8l. 16s. 6d.; interest and commission, 2l. 8s.= 746l. 17s. 9d.—Error in last account, 18l.; silver-lead ore sold, 135l. 12s. 6d.; calls received, 141l. 10s.: leaves balance to next account, 451l. 15s. 3d.—less, call in arrear, 32l. 10s.; lead ore dressed, 108l.: leaves a balance of 261l. 5s. 3d. A call of 1l. per share was made, and the purser directed to take steps to recover the arrears of calls immediately. The ore being chiefly found in the 50 fm. level, the agents were directed to take away the men from the levels above, and employ them to ventilate that level, and drive it north and south with all expedition, stoping the backs at the same time: the lode in this level is orey for 7 inches wide.

At Rix Hill Mine quarterly meeting, the accounts showed—Balance last account, 658l. 12s. 10d.; over estimate of tin sales, 45l. 17s. 7d.; expense of delivering ores, 9l. 9s. 2d.; cost for Sept., 214l. 9s. 6d.; October, 243l. 3s. 9d.=1171l. 12s. 10d.—Proceeds of Sept. and Oct. ores, 480l. 7s.: leaving balance to next account, 691l. 5s. 10d.

At East Crowndale Mine quarterly meeting, the accounts showed—Balance last account, 3l. 3s. 7d.; call in Oct., 389l. 12s.=392l. 15s. 7d.—By cost for Sept., 133l. 8s.; Oct., 70l. 18s. 10d.; Nov., 93l. 16s. 3d.; 80 tons of coal, 48l.: leaving balance to next account, 46l. 12s. 6d. A call of 3s. per share was made.

At Great Sheba Mine bi-monthly meeting, on the 7th inst., the accounts showed—Cash received, 482l. 5s.—Less balance due from last account, 116l. 7s. 7d.; cost for Oct., 133l. 17s. 9d.; Nov., 130l. 10s. 3d.; sundries, 7l. 5s.: leaving balance to next account, 94l. 4s. 5d. A call of 12s. 6d. per share was made. They expect the shaft will be down to the 40 fm. level next month; water is issuing from the fissures on the south side of it, and the cross-cut to the lode will take all April. A north branch, running parallel with Vatcher's lode, will fall in at a shallow depth.

At the West Phœnix bi-monthly meeting, on the 7th inst., the accounts showed—Cash received, 607l.—Balance due from last account, 62l. 3s. 6d.; Oct. cost, 140l. 15s. 5d.; Nov. ditto, 163l. 18s. 11d.; sundries, 9l. 18s. 3d.: leaving balance to next account, 230l. 3s. 11d. The works were represented to be progressing satisfactorily, although the ground in the shaft continues hard.

At Wheal Gill bi-monthly meeting, on the 1st inst., the accounts showed —Balance last account, 54l. 2s. 7d.; paid Mr. Anstis for deeds of additional ground, 51l. 19s.; sundries, 10l. 19s. 7d.; cost for Oct., 164l. 1s. 5d.; materials from Trewalder Mine, 18l. 3s. 6d.; cost for Nov., 136l. 12s. 11d.; Nicholls and Co's. balance of pitwork, 415l. 8s. 6d.; timber, 73l. 8s. 3d. =924l. 15s. 9d.—Cash received, 842l.: leaving balance against the mine, 82l. 15s. 9d. A call of 10s. per share was made. The engine went to work on the occasion, and the water will be drained with all dispatch.

At Tremar Mine bi-monthly meeting, on the 8th instant, the accounts showed—Balance last account, 258l. 10s. 4d.; call on 839 shares at 1l., 839l.=1097l. 10s. 4d.—Oct. cost, 195l. 4s. 8d.; Nov., 173l. 3s. 10d.; merchants' bills, 150l.; James Thomas's first moiety on account of steam-engine, 500l.: leaving balance to next account, 79l. 1s. 10d. A call of 10s. per share was made, and the purser requested to take immediate and stringent measures for the payment of the arrears of calls. The engine-shaft is down 12 fms. under adit, and the men are putting down the pit-work preparatory to setting the engine to work the latter end of the month.

At Glynn Wheal Mary meeting, on the 9th inst., the accounts showed —Paid Lord Vivian for costs incurred in driving the adit 74½ fms., 256l.; railroad therein, 20l. 3s. 1d.=276l. 3s. 1d. To defray which a call of 30s. per share was made, and Capt. P. Clymo, jun., appointed manager and purser, at 3l. 13s. 6d. per month.

A meeting of the Peter Tavy and Mary Tavy shareholders was held on the 10th inst. The unhappy division in this company, probably, was the cause of so many cheerful countenances not being present as usual at former meetings. The accounts showed about 700l. in hand, and stated that the tin sold realised about 90l.,—which certainly very far from approaches the amount anticipated from the reports circulated. The last month's cost was about 100l., being a considerable excess over previous months. The books of the company are to be kept at a solicitor's office, who is to furnish all information required respecting the mine.

At the Warleggan Consols meeting, on Tuesday, the accounts showed—Balance last account, 112l. 9s. 4d.; calls, 125l. 10s.; Calstock United Mine rent, 20l.=257l. 19s. 4d.—By mine cost Sept. and Oct., 91l. 15s. 9d.; merchants' bills, 19l. 14s. 1d.; carriage, 3l. 14s. 10d.; salaries, 27l. 6s.; machinery on account, 10l.; gratuities to agents, 10l.; sundries, 1l. 5s.; London expenses, 75l. 6s.: leaving balance in hand, 18l. 17s. 8d. A call of 1s. 6d. per share was made, the promising aspect of the mine rendering a larger sum not desirable; and it was resolved, that shareholders who had paid their calls since the last meeting have their forfeited shares restored. The directors' report stated, that improvement continued to appear, and great hopes were entertained of early larger returns from present operations. The ground was easier for driving and the cost less, and in two months the agents hoped to be in a position to stope the tin ground in the bottom of the adit on each side the winze.

At Treburget United Mines meeting, held at the Red Lion Hotel, Truro, on the 10th inst., the accounts to the end of December showed a loss of 246l. 4s. 10½d. which was divided. The resolution at the last meeting, appointing a committee, was rescinded, and the management committed to Capt. J. Stevens until the next meeting. Capt. John Vivian's salary was fixed at 2l. 2s. per month, and the purser authorised to institute proceedings against defaulting shareholders 14 days after payment is demanded.

At Trethevy Mine meeting, on the 7th inst., the accounts showed—Balance from last account, 155l. 9s. 10d.; costs for Oct., 161l. 0s. 6d.; Nov., 158l. 5s. 7d.; sundries, 7l. 5s. = 482l. 0s. 11d.—By cash received, 396l. 17s. 6d.: leaving balance against mine to next account, 85l. 3s. 5d. A call of 10s. per share was made.

At West United Hills meeting, on the 29th Dec., a call of 5s. per share was made, payable forthwith.

At Wheal Comfort meeting, on Tuesday, the accounts for Aug., Sept., Oct., and Nov., showed—Balance from last account, 610l. 19s. 11d.; costs and merchants' bills, 1188l. 5s. 8d.=1799l. 5s. 7d.—By ores sold (less dues), 837l. 19s. 4d.; call in Sept., 640l.: leaving balance against adventurers, 321l. 6s. 3d. A call of 5l. per share was made for paying the balance and prosecuting the mine for the next two months.

At the Carvannall Mine meeting, on the 6th inst., the accounts for Oct. and Nov. showed—Balance last account, 471l. 18s. 5d.; Oct. mine cost, 422l. 1s. 5d.; ditto November, 335l. 17s. 11d.; copper dues, 7l. 5s. 2d.= 1237l. 2s. 11d.—By division of costs, 475l. 4s.; call of 5s., 264l.; copper ores sold, 108l. 18s. 2d.: leaving balance against the mine, 389l. 0s. 9d., which was divided, and a further call of 5s. per share made, for the prosecution of the mine. The resignation of Captain Joseph Eudey was accepted, and Captain William Roberts appointed to direct the underground operations for the next two months. [The report of Capts. J. Eudey and J. F. Martin will be found among our Mining Correspondence.]

At East Wheal Margaret meeting, on the 7th inst., the accounts showed —Balance against adventurers last account, 614l. 12s. 7d.; labour cost for August, 81l. 12s. 5d.; September, 86l. 9s. 1d.; Oct., 88l. 2s. 3d.; doctor and club, 4l.; carriage, 10l. 3s. 6d.; merchants' bills, 183l. 19s. 10d. = 1068l. 19s. 8d.—By call of 15s. per share, 768l.: leaving balance against adventurers, 300l. 19s. 8d. A call of 6s. per share was made. [The report of Capt. T. Treweeke and B. Michell will be found among our Mining Correspondence.]

The Coed Mawr Pool Lead Mining Company will hold their bi-monthly meeting this day (Saturday) at the offices, Adam-street, Adelphi. The reports from the mine continue to be of the most satisfactory character; they show rapid and decided progress. We shall very shortly have to transfer this mine, which contains five ascertained parallel lodes, besides a cross lode, and another called the old Roman lode, to our dividend list —the first cargo of ore, consisting of 31 tons 2 cwts. of lead, of superior quality, having been shipped last week for Holywell. Another will follow ere long, as the works advance, lead being raised daily in Jones's sink, although as yet it is not more than 20 yards in depth. The ore in this sink is raised and dressed for the market by contract. The captain's last report states the body of the lead to be increasing, and that while sinking about 10 yards deeper, to reach the level going south from the No. 1 engine-shaft, they will be getting lead all the way. The other principal operations in hand were to open upon the lodes from the two engine-shafts, which were in full work, when, according to Capt. Jones's report, there cannot be the least doubt of immediate returns, as all appearances justified the most perfect confidence, and they had only a few yards further to drive to accomplish the junction of the cross-cuts with lodes Nos. 2 and 3. In all probability the next bi-monthly report will announce the raising of lead simultaneously from the sink, and from three of the five parallel lodes.

The Tavistock district bids fair to establish its importance for mining; and now that the heavy expenses of machinery and other surface works are completed, we hope that the results will justify the expectations of mining enterprise in that locality. This at least we may say, that the object of its chief promoters is *bonâ fide*, and that the undertakings are carried on in the most legitimate manner. We have now to record a great improvement at East Wheal Russell during the past week. In the Tunnel level the lode has been driven across south 4½ fms., and no south wall has been reached; while we are told that the last 2½ to 3 ft. is good saving work for copper ore. This level is a considerable distance from the shaft and the cross-courses. It cannot at present be ascertained how far up the ore extends. The shaft has been sunk 4 fms. since the 1st of this month; and it is expected to be down as much more before the 31st, which will make a total depth of 38 fms. from surface. At this rate it will not take long to reach the riches believed to exist below. At Wheal Fanny, good lead is being broken in the winze going down from the adit level (15 fathoms). In Hitchins's shaft a lode has been unexpectedly cut at 21 fms.; but not sufficiently opened upon to ascertain its character. On Thursday, a valuable discovery was made at Wheal Surprise. The lode contains large stones of rich black ore, and is in every respect of the most promising character.

Great Polgooth sold, on the 3d inst., a parcel of tin for 474*l.* 3s. 2d., and intend selling another on Monday. The stamps are now well supplied with water. Clarke's lode in the 96 is producing good tinstuff. The 84 west, on the south lode, is worth 10 cwts. of tin per 100 sacks. Five pitches are yielding on an average 8 cwts. of tin per 100 sacks. Other pitches are as productive as usual, and the mine generally improved since the last report.

At Tincroft Mine, the lode in Highburrow engine-shaft, sinking under the 152, is worth 30*l.* per fm.; the 142, east of Martin's, 11*l.*; the 132 east 12*l.*; the stopes in the back 16*l.* per fm.; Chapple's lode in the 120 west is worth 20*l.* per fm. for copper; the level above 6*l.*; the winze between 5*l.*; the 100, west 6*l.* per fm. The south part of Dunkin's lode westward is worth 35*l.* per fm. for copper ore. The pitches on this lode continue to look well. The various points at North Tincroft are equally as productive; and the caunter lode in the 24, east of Stainsby's, is turning out 18*l.* per fm. for copper ore,

At Wheal Tom, on Thursday, the new 50-in. cylinder engine, from the Plymouth Foundry, was set to work in the presence of the adventurers and agents, and gave every satisfaction, being calculated of sufficient power to explore the mine to a considerable depth. It is said to be the largest ever made in Devon. Another of the same size is now in progress for Bottle Hill Mine, under the design of Messrs. Hocking and Loam.

At Wheal Wrey Consols, they have, in the past week, driven 3 fathoms in a fine gossan, lode 4 ft. wide, producing some large stones of silver-lead ore.

At Copper Bottom, the 20 west is stoping by eight men; the lode is turning out 1½ ton of copper ore per fm. At the end of the month they contemplate its working on tribute of about one-half. The branch in the back of the 20, west of May's shaft, is still producing good ore.

At South Tolgus, the 66 west is turning out some good stones of ore; the 54 west on Youren's lode, 1 ton; the rise in the back of the 42 fathom level, good stones of ore; the winze under is orey throughout, and that under the 32 is worth a ton of copper ore per fm.

At East Tolgus, the new shaft on the tin lode is communicated to the adit level; the said level, east on North Buller lode, will turn out two tons of ore per fathom; it is a fine looking lode. About 18 tons of ore were sampled on Tuesday.

At Llwynmalees Mine, the adit level has been secured, and the water-wheel prepared to go to work for the purpose of draining the mine and effectually working it.

At East Frongoch, six men are employed in sinking the shaft, which is calculated to take the lode at the 40.

At East Daren, there is a good lode in the bottom of Taylor's shaft, with fine stones of ore; the 20 west is driving, and that level, east from Reed's, has got into poor ground seen in the level above, but they expect to be shortly on the other side of it, and in the second run of ore; the stopes are turning out well; 60 tons have been forwarded to Aberystwith, and 80 are expected for sampling on the 19th, with a regular return of 40 tons per month to follow.

At Holmbush, the mine continues on the improving order, as will be found in the report amongst the British Mines. The agents are sanguine of having a profitable mine ere long. The lode in the diagonal shaft, below the 132, is turning out 4 tons of copper ore per fm.; the stopes in the bottom, 3½ tons; the 120 east, on flap-jack lode, 4 tons; the 110 east, 5 tons; the 100, full 6 tons of ore per fm.

At West Basset Mine, they are sinking the engine-shaft below the 84 fm. level, by nine men; the lode is 4 feet wide, good stones of ore; the bottom levels, east and west, are likewise turning out ore of rich quality; 63 tut-work men are employed, 53 of whom are driving and sinking upon the course of different lodes. The new shaft is down to the 30, and now being cased and footway put in.

At Wheal Seton, the north lode, at Cock's, in the 64 west, is turning out 3 tons of copper ore per fm; the 90, west of Tilly's, 15 tons per fm., and the shaft 20 tons per fm. for length of shaft; the eastern end 5 tons. About 9 or 10 fathoms, already opened on this bunch, has yielded nearly 20 tons per fathom.

At Dolawen Mine (in North Wales) they are getting on well with their crushing and jigging, having now ample water. They have 48 tons of ore ready for shipment, and can crush 2½ tons per day. There are large heaps of stuff waiting to be picked over. The tables are fixed, and the launders, gratings, &c., all complete. They expect to have full 70 tons of ore by the end of the month. The lode in the bottom of the 15 fm. level is 16 in. big, yielding good ore. The bottom stope looks well—lode 1 ft. wide, almost solid; the end is poor at present. The crusher is in excellent working order, and a railroad preparing to it.

We understand, from good authority, that 4*l.* per share has been paid on Carbona, instead of 2*l.*, therefore calls have been made amounting to 4000*l.* that we before had no intimation of, and which has not appeared in our list of calls. Our correspondents would oblige us more by giving the early and not late intimation thereof.

We must also express our desire that parties furnish us with the requisite data, proving that mines appearing in our list as not having sold ores, are entitled to be placed among those that have: we must be informed when, and to what amount.

During the week, shares have changed hands in Alfred Consols, West Carnadon, West Wheal Alfred, Wheal Seton, St. Aubyn and Grylls, Trevelyan, South Tamar, Wheal Robins, Merllyn, East Daren, Garreg, Bedford United, Trelusback, Mary Ann, Trelawney, Wheal Basset, South Frances, Cook's Kitchen, Wheal Cupid, Callington, Black Craig, Carn Valley, Bosorn, Wheal Tom, Wheal Samson, Tincroft, East Black Craig, Wheal Arthur, Lewis, Carbona, Dyfngwm, Nant-y-Car, Wheal Golden, Devon Consols West, Allt-y-Crib, Wicklow, Mining Company of Ireland, Carvannal, Condurrow, East Seton, Hawke's Point, Wheal Brewer, Comford, and Low's Patent Copper Company.

In Foreign shares, transactions have taken place in Imperial Brazilian, United Mexican, Cobre, Santiago, and Worthing.

The mining transactions of the week on the Stock Exchange are given after the Mine Share List.

Advices have been received from the Alten Mines to the 8th December. The yield of copper for Nov. was 9·390 tons. The winze at Raipas, in the 20, is yielding some returns of good quality ore. The Old Mine continues to make regular returns, and in increased quantities. The workings generally are of a satisfactory nature, and fairly remunerative to both workmen and adventurers.

The Linares Mining Company have received advices from Capt. Martyn to the 3d Jan. They have 18 pitches working, at an average tribute of 1*l.* 11s. per ton. The calculation for Dec. will not be quite as much as estimated. January is expected to be 220 tons. The sump sinking below the 55 is in favourable ground, lode more regular, and worth 1 ton per fm.; west, 1 ton; the stopes east, 2½ tons per fm. The 45, east of Shaw's, is worth 2 tons per fm. Buena Ventura winze, east of San Juan shaft, is worth 5 tons of ore per fm. La Esperanza winze is worth 1½ ton per fm. The tribute department, although not quite so good as in November, is looking tolerably well, and as soon as they are under the old workings, the returns are likely to increase.

In addition to the particulars furnished in the report of the half-yearly meeting of the Royal Santiago Mining Company, in our last Journal, the accounts showed—Money at interest, at bankers, and Bank of England, and to be received for copper ore sold, on account for half-year to Aug. 31, 1851, 26,366*l.* 3s. 3d.; labour cost and general expenses, 2676*l.* 11s. 8d.; steam machinery and live stock, 1113*l.* 10s. 5d.=30,156*l.* 5s. 4d.—By working capital account on 28th of February, 1851, less loss on half year (5735*l.* 14s. 2d.), 9142*l.* 2s. 3d.; call, 14,000*l.*; due to holders of forfeited shares, 2486*l.* 6s.; bills payable, 3023*l.* 14s. 2d.; sundries, 1504*l.* 2s. 11d.=30,156*l.* 5s. 4d. On the profit and loss account for the half year, we find the above loss thus accounted for: paid for wages, stores, materials, timber, transit of ores, &c., 11,055*l.* 13s. 6d., and received for 651 tons of ore and 17 tons of precipitate, 5239*l.* 1s. 9d., and for interest, 80*l.* 17s. 7d.; showing the loss, as above, 5735*l.* 14s. 2d.

Advices from the Imperial Brazilian Mines are not of the most encouraging nature; both at Bananal and Gongo the produce has been very small. The Maria workings have yielded good samples for the stamps, and this appears to be the only place the officials have any confidence in. Cross-cuts had been commenced, and measures taken for thoroughly exploring this ground. The produce from 7th to 27th of Nov. was—Gongo, lbs. 9 8 9 0.; Bananal, lbs. 3 4 2 0=lbs. 13 0 11 0.

From the National Brazilian Mines, we learn that at the open cut on the Terra Caheda, 62 waggon loads had been stamped as a sample, which produced better than any stone from the mine for some time past. The lode is from 12 to 16 ft. wide, and can be taken away at little expense. The produce for the month, to 26th Nov., was Mks. 7 6 7 66.

At St. John del Rey, the difficulties which had materially diminished the produce in June, July, and August, have been surmounted; and the commencement of the rainy season aiding the stamps, it is hoped to maintain, if not surpass, the present produce of gold, which for October was 28,247 oitavas, the stone yielding 4·22 oits. per ton. The supply of stone was abundant, and at the Bahu the produce had improved. An accidental discovery had been made—that what had all along been considered the wall of the lode was only a thin sheet of killas, behind which is a large mass of excellent lode, the thickness of which had not been ascertained. Profit on the month, 4957*l.* 19s. 2d.

The accounts from the United Mexican state that the working by buscones, at Rayas, had been continued during the month, and the profit realised $15,060 3 7. This, though a decline on the previous month, is satisfactory and remunerative. Nothing worthy of especial notice had taken place at the other mines, with the exception of an increase in the width of the vein at Jesus Maria y Jose.

At the Anglo-Californian meeting, held on Wednesday, it was resolved that the report of the directors be received and adopted; that the board of directors should be empowered to adopt such measures for the recovery of the abstracted books and documents as may be expedient, and to take such proceedings against Mr. Luke Williams as their proper legal advisers may recommend; that the acts of the board of directors be confirmed as having taken place prior to complete registration; that 2000 free shares should be presented to each of the directors in testimony of their services, and the sum of 1200*l.* annually set apart for the remuneration of the board of directors and the payment of the expenses of the provincial directors; as also that 2500 free shares be granted to the chairman and directors in trust for the company; to apply the dividends and profits of the same as they may think fit, in the remuneration of the resident director and other offices in California, with power to transfer to Sir Henry Huntley any portion not exceeding a moiety of the same, in the event of his retirement from office with the approbation of the board of directors.

At the meeting of the South Australian Company, the report stated that the accounts from the Kanmantoo Mine were, upon the whole, satisfactory. The workings during May, June, and July, would leave a balance in favour of the mine, and all that was wanting to render it a profitable undertaking was a further judicious outlay of capital. The expenditure had, however, been restricted to what was absolutely necessary to keep the mine in a proper working state, with a view to letting it on lease. One sett of 95 acres had been let at 1-14th dues, with a considerable bonus; and another of 120 acres, comprising all the workings of the mine, had been leased to a highly-respectable company. The directors here had ratified the contract, and the necessary documents were being prepared by the solicitors. The general accounts were favourable: between Nov. 1, 1850, and 30th April last, 1857 acres of country lands, and a portion of town lands, had been let on lease, making the total annual rental 20,161*l.* 17s. The gold discoveries in other parts of the continent had not seriously affected South Australia. Great excitement had been produced, but few had been induced to abandon their regular and well-paid employment for uncertain gains by digging for gold in New South Wales. Immigration was on the increase, and there appeared no fear but that the increasing demand for labour would be tolerably well supplied.

Auckland papers have been received *viâ* Sydney to the 5th October. The chief, and, indeed, only topic of interest was the reported discovery of gold near Hokianga.

Among the several companies formed in London for carrying on operations in Australia and California for the working of auriferous quartz rock and gold washing, is the Australian Freehold Gold Mining Company, which is creating much sensation on the Stock Exchange, as being the only company which has actually freehold land, abounding with gold to offer to its shareholders. The prospectus states that an estate of 500 acres of freehold land in the Bathurst district has been purchased for an immediate payment of 12,500*l.*, and 12,500*l.* in free shares; it has been surveyed by a competent party, and declared to "abound with gold quartz," and is capable of sustaining the most extensive mining operations for half a century. The committee of management are men of reputation and character: there is every indication of this being a legitimate adventure, with a sound basis to work upon, and that parties joining the undertaking will at least have a share in a real property, in return for the money invested.

Although the dealers in the Stock Exchange have been too much engaged this week in the other markets to pay much attention to the new gold mining shares, it is satisfactory to find that the inquiries for the preferable descriptions are increasing, accompanied with a general upward tendency of prices. Quotations had already, in several instances, sensibly improved, and to-day there was a further marked advance, especially in Agua Fria and Nouveau Monde. This increased attention is mainly owing to the highly favourable accounts of the success of the Californian workings. In connection with this subject, it may be mentioned that the total receipts of Californian gold in the United States, ascertained for the year 1851, amount to no less than $55,000,000, or 11,250,000*l.* sterling. The latest quotations of the market are as follows, as stated in the new official list of the Stock Exchange:—Agua Fria, 1¾ to 1½ prem.; Anglo-Californian, ½ to ⅝ prem.; Ave Maria, ⅛ to ¼ prem.; Nouveau Monde, ¾ to ⅞ prem.; West Mariposa, par to ⅛ prem.

Most extraordinary accounts reached town on Thursday from Port Philip, by which it appears the gold fields in that colony are likely to prove the richest of any in Australia, whilst the local journals do not hesitate to express a confident belief that the auriferous riches of their territory exceed anything ever before discovered, even in California. Parcels of gold of ½ cwt., and another weighing no less than 1 cwt., had been brought down from the gold field, and the excitement was most intense, thousands of people being at work, with generally successful results, whilst thousands more were preparing to desert their ordinary occupation, and follow the general example. From the mines previously stated as having been discovered, the accounts are scarcely less wonderful. Here the interest excited is very great, and a much increased inquiry is noticed for the shares of the Australian gold mining and reducing companies now in the field. The accounts received yesterday refer especially to the defective nature of the means adopted for the extraction of the precious metal, and state that, with the application of capital, the yield might be immensely increased. British Australian shares are quoted 3-16th to 5-16th premium; Australian Auriferous Ore Reduction, ¼ to ⅜ prem.

HULL, THURSDAY.—Our correspondents, Messrs. T. W. Flint and Co., state that the market for mining shares has been firm and improving during the week. Merllyns have been among the most favourite stocks, and there is a slight inquiry for Trebarvah, Lewis, and one or two other stocks. St. Aubyn and Grylls are quieter; the meeting is looked forward to with some degree of interest, a good account being expected. Tremaynes are rather more offered, while Alfreds, on the other hand, are in improved demand.

THE ELECTRIC LIGHT.—About a month since some experiments were made in the Belgian Chamber of Deputies, Brussels, by M. Melsens, to ascertain the practicability of employing the electric light for purposes of illumination. Candles had always previously been used, which left a large portion of the apartment in complete obscurity; an attempt had been made to employ Carcel lamps, but they too much encumbered the desks. Gas was to have been introduced last year, but, it is said, the state of the finances prevented any expense being incurred. For the development of the electric light, batteries were placed in the corridor which surrounds the public gallery, and the insulated wires carried to the carbon points on the balustrade below the president's seat. One light was first used, which gave nearly sufficient illumination; but two were afterwards experimented with, placing them in different positions, and although perfectly successful, does not appear to have been entirely satisfactory. The reporters say the light was intensely fatiguing to the eyes, and gave everything a green tinge; and recommend that gas lustres should be fixed on all the columns round the chamber, as a far more desirable means of illumination.

## CORNISH STEAM-ENGINES.

The number of pumping-engines reported for the month of Nov. is 20—the quantity of coals consumed being 1542 tons, lifting, in the aggregate, 13,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 50,000,000 lbs. lifted 1 ft. high, by the consumption of a bushel of coal.—The following have exceeded the average:—

| Mines. | Engines. | Length of stroke | Load in pounds | Load per sq. inch on plst. | Strokes per min. | Consump. of coal in bus. | Millions lifted 1 foot by consump. of 1 bush. coal | Lifted 1 foot by 1c. of coal |
|---|---|---|---|---|---|---|---|---|
| Great Work.. | Leed's 60-in. | 9·0 | 55,343 | 15·2 | 6·5 | 1742 | 58·7 | 70 |
| Carn Brea.... | Sims's 50 & 90 | 9·0 | 53,57 6 | 21·2 | 3·0 | 1198 | 52·2 | 62 |
| S. W. Frances | 75-inch ..... | 11·0 | 70,67 2 | 13·1 | 3·4 | 1896 | 55·3 | 66 |
| United Mines | Taylor's 85-in. | 11·0 | 99,065 | 15·8 | 5·5 | 3398 | 62·6 | 74 |
| Ditto .... | Loam's 85-inch | 10·0 | 87,947 | 11·6 | 5·8 | 2963 | 50·5 | 60 |
| Ditto .... | Hocking's85-in. | 10·0 | 97,817 | 14·4 | 6·4 | 3544 | 57·9 | 69 |
| Tywarnhayle.. | Gardiner's80-in | 10·0 | 79,916 | 12·7 | 8·6 | 4416 | 54·1 | 65 |
| East Wh. Rose | Michell's 85-in. | 10·0 | 83,665 | 13·2 | 2·2 | 1470 | 50·6 | 60 |

Sold by Powles, Brothers, and Co., from New Granada, to Richardson and Co.

| | | |
|---|---|---|
| 8 cwts. of sulphuret of lead and concentrated slags, at | £473 10 0 | per ton |
| 45 cwts. of silver ore | 155 10 0 | ,, |
| To Sims, Willyams, Nevill, and Co. | | |
| 26 cwts. of cupel stuff | 225 0 0 | ,, |
| 2 cwts. of copper and silver alloy | 35 19 0 | per cwt |

## LEAD ORES.

TICKETINGS FOR ABOUT 100 TONS NEWTONARD'S LEAD ORE.

Douglas, Isle of Man, January 14.

| | |
|---|---|
| Sims, Willyams, Nevill, and Co. (purchasers) | £10 3 6 |
| Walker, Parker, and Co. | 9 18 6 |
| Newton, Keates, and Co. | 10 0 0 |
| John P. Eyton | 9 10 0 |
| Locke, Blackett, and Co. | 9 5 0 |
| W. J. Cookson and Co. | 9 13 0 |
| Tamar Smelting Company | 8 16 0 |

SALES BY THE PENTIRE GLAZE AND PENTIRE UNITED MINES:—

| | | | Tons c. qr. lbs. | Price per Ton, | Amount. |
|---|---|---|---|---|---|
| June 6— | Sold to Tamar Smelting Co. | | 43 12 0 0 | — | £377 19 7 |
| July 5— | Ditto | ditto | 14 18 0 0 | £14 11 6 | 216 10 10 |
| ,, — | Ditto | ditto | 15 18 0 0 | 14 1 6 | 223 3 9 |
| Aug. 18— | Ditto to Locke and Co, | | 24 3 2 0 | 13 16 6 | 334 2 1 |
| Sept. 27— | Ditto | ditto | 21 20 0 0 | 13 17 6 | 304 15 1 |
| Nov. 1— | Ditto to Sims and Co. | | 22 0 0 0 | 13 17 0 | 307 11 3 |
| Dec. 9— | Ditto | ditto | 28 4 3 0 | 12 5 6 | 346 9 6 |
| | Amount of money | | | | £2110 12s. 1d. |

Sold at the Mine.

| Mines. | Tons. | Price per Ton. | Purchasers. |
|---|---|---|---|
| Trehane | 52 | £12 2 6 | Locke, Blackett, & Co. |
| Tamar Mines | 57 | 17 12 6 | ditto |

*** The following Ticketing Paper should have appeared in the Journal of the 3d inst., but its insertion was prevented by the late arrival of the post: it is now given for the purpose of future reference;—

## COPPER ORES.

Sampled Dec. 17, and Sold at Andrew's Hotel, Redruth, Jan. 1.

| Mines. | Tons. | Price. | Mines. | Tons. | Price. |
|---|---|---|---|---|---|
| Tincroft | 113 | £3 5 0 | North Pool | 71 | £2 3 6 |
| ditto | 78 | 5 4 0 | ditto | 66 | 4 5 6 |
| ditto | 76 | 3 7 0 | ditto | 58 | 3 16 6 |
| ditto | 63 | 2 7 6 | ditto | 43 | 6 15 0 |
| ditto | 61 | 7 8 0 | Wh. Basset | 68 | 2 14 6 |
| ditto | 60 | 3 14 6 | ditto | 60 | 2 18 6 |
| ditto | 55 | 10 2 0 | ditto | 55 | 3 13 6 |
| ditto | 47 | 4 2 0 | ditto | 54 | 6 7 6 |
| ditto | 46 | 4 12 0 | ditto | 53 | 6 5 6 |
| ditto | 45 | 4 18 0 | ditto | 51 | 21 0 6 |
| ditto | 43 | 2 2 0 | Wh. Seton | 62 | 6 9 0 |
| ditto | 42 | 9 6 6 | ditto | 55 | 3 19 0 |
| North Roskear | 75 | 5 6 6 | ditto | 47 | 2 11 0 |
| ditto | 70 | 6 11 6 | ditto | 40 | 2 10 6 |
| ditto | 60 | 5 17 0 | Pendarves | 97 | 4 13 6 |
| ditto | 58 | 11 2 6 | South Wh. Frances | 67 | 6 2 0 |
| ditto | 57 | 5 19 0 | ditto | 48 | 6 10 6 |
| ditto | 52 | 6 1 0 | ditto | 43 | 7 0 6 |
| ditto | 50 | 1 12 0 | ditto | 19 | 4 11 6 |
| Consolidated | 103 | 5 6 6 | ditto | 10 | 11 9 0 |
| ditto | 99 | 4 5 6 | Fowey Consols | 85 | 7 11 0 |
| ditto | 90 | 4 18 0 | ditto | 79 | 6 18 0 |
| ditto | 72 | 5 4 0 | Crane & Bejawsn | 53 | 7 10 0 |
| ditto | 31 | 6 11 0 | East Seton and Wheal Maud | 30 | 4 3 0 |
| North Pool | 105 | 5 6 6 | | | |

TOTAL PRODUCE.

| | | | | | | |
|---|---|---|---|---|---|---|
| Tincroft | 729 | £3514 4 6 | Wheal Basset | 341 | £2312 0 6 | |
| North Roskear | 422 | 2589 12 6 | S. Wheal Frances | 187 | 1225 8 0 | |
| Consolidated | 395 | 1990 3 0 | Fowey Consols | 164 | 1186 17 0 | |
| North Pool | 343 | 1507 16 0 | Crane & Bejawsn | 53 | 397 10 0 | |
| Wheal Seton & Pendarves | 301 | 1291 9 6 | East Seton and Wheal Maude | 30 | 124 10 0 | |

| | | | |
|---|---|---|---|
| Average Standard | £105 9 0 | Average Produce | 72 |
| Average Price per ton | | £5 8 6 | |
| Quantity of Ore | 2965 tons | Quantity of Fine Copper, | 230 tons 6 cwts. |
| Amount of Money | £16,139 11 0 | | |

LAST SALE.—Average Standard .... £107 18 0.—Average Produce ..... 6¾
Standard of corresponding sale last month, 107*l.* 18s.—Produce, 7¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

| | Tons. | Amount. |
|---|---|---|
| Mines Royal | 400 | £2109 18 0 |
| Vivian and Sons | 476 | 2547 12 6 |
| Freeman and Co. | 439 | 1896 10 0 |
| Grenfell and Sons | 358 | 2283 8 4 |
| Crown Copper Company | 35 | 542 11 10 |
| Sims, Willyams, and Co. | 474 | 2469 19 0 |
| Williams, Foster, and Co. | 357 | 1992 7 10 |
| English and Australian Co. | 190 | 1028 14 6 |
| Mason and Elkington | 196 | 1167 12 0 |
| F. Bankart | 40 | 101 0 0 |
| Total tons | 2965 | £16,139 11 0 |

COMPARATIVE AVERAGES OF THE WEEKLY SALES OF COPPER ORES FOR NINE YEARS, TO THE FIRST SALE IN JANUARY, 1852.

| Years. | Tons. | Produce. | Amount. | Standard. | Cop. Ore. | Price Cake Cop. |
|---|---|---|---|---|---|---|
| 1843 .. | 4555 | 7⅝ | £27,024 11 6 | £114 12 | £78 6 | £84 |
| 1844 .. | 4229 | 7¼ | 24,657 15 6 | 113 11 | 77 3 | 85 |
| 1845 .. | 4480 | 7¼ | 24,227 1 0 | 106 9 | 70 11 | 84 |
| 1846 .. | 3543 | 6¾ | 18,059 0 6 | 113 2 | 73 9 | 93 |
| 1847 .. | 3189 | 8¼ | 18,769 5 0 | 103 10 | 70 11 | 88½ |
| 1848 .. | 3444 | 8¼ | 18,531 14 0 | 99 1 | 65 11 | 98 |
| 1849 .. | 3392 | 7¼ | 14,343 4 6 | 91 3 | 55 5 | 79½ |
| 1850 .. | 3785 | 7¼ | 19,217 11 6 | 109 5 | 70 17 | 84 |
| 1851 .. | 3546 | 6¾ | 16,868 0 0 | 110 10 | 70 0 | 84 |

NO SALE on Thursday last, January 15.

Copper ores for sale on Thursday next, at the Royal Hotel, Truro.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria, 1633—West Caradon 367—Fowey Consols 201—Wheal Friendship 184—Bedford United 141—Poldice 80—Wheal Russell 71—Wheal Arthur 55—Tamar Slag 40—Grambler and St. Aubyn, 25—Devon and Cornwall United 17—Wheal Jewel 14—Wheal Maiden 12.—Total, 2839 tons.

Copper ores for sale on Thursday week at the Royal Hotel, Truro.—Mines and Parcels.—United Mines 571—Perran St. George 568—Consols 514—Treviskey 355—Par Consols 248—South Caradon 204—South Tolgus 190—Treleigh Consols 97—Wheal Unity Consols 91—East Wheal Leisure 89—Wheal Clifford 77—Trethellan 65—Wheal Ellen 51—Wheal Busy 35—Great Wheal Leisure 25—East Tolgus 17.—Total, 3197 tons.

## COAL MARKET, LONDON.

MONDAY.—Ships at market, 54; sold, 37.
WEDNESDAY.—Ships at market, 44; sold, 35.
FRIDAY.—Ships at market, 34; sold, 25.

LIABILITY OF SHAREHOLDERS.—In the Court of Exchequer, yesterday, Mr. Crowder moved to enter a verdict for the defendant in the case of the Galvanised Iron Company *v.* Westoby, pursuant to leave reserved by the Chief Baron at the trial. This was an action for calls, and it appeared that the defendant, though he had paid a deposit, and had been put on the register of the company, had never signed the deed. Under these circumstances, when a call was made, he took no notice of it, and his shares were forfeited; but afterwards an Act was obtained to wind-up the concerns of the company, and under that the call was made, for which this action was brought—the directors being thereby authorised to make calls on the "shareholders." It was contended at the trial and now that the defendant was not a shareholder, by reason of his not having signed the deed; and that, if he was, the Deed of Settlement did not authorise the directors to treat him as such, and sue him for calls, after they had elected to forfeit his shares. The Court granted the rule on both points.

## NOTICES TO CORRESPONDENTS.

We particularly request those of our subscribers who intend binding the Journal at the end of the year, to be careful in keeping them perfect, and to obtain missing numbers immediately on discovery, as we are unfortunately unable to furnish many for which application is now made. An index is printed with the last Journal for the year, to make the volume perfect and easy of reference for any particular article required.

An Old Subscriber (Bristol).—The cost-book, with its rules and regulations, and the signatures of the adventurers, requires no stamp.

Chemicus (Tavistock).—We do not imagine that the magnet can possibly be of the slightest utility in digging for gold in Australia or California, as, from all accounts yet received, there is no evidence of the presence of iron to warrant its use. We are not aware of any English work on the subject mentioned; but much valuable information will be found in Mr. Evan Hopkins's "Geology and Magnetism."

Anglo-Californian Gold Mining Company.—Owing to press of matter, we are unable this week to publish the directors' report, which, however, will appear in our next *in extenso*. An epitome of the proceedings will be found in another column.

S. H. (Helston).—The Number of the Journal (p. 39) is out of print.

Wheal Gill.—A shareholder asks whether the calls have all been paid up in this mine upon the 1436 shares, or how many are in default? He complains that the statements forwarded him say, "Cash received, 842*l.*" in one sum, giving no particulars for what—calls or ore sales. He presumes the whole is for the former; still his wish is to know if there are any in arrear or not.

Wheal Edwards.—Sir: I am glad to notice the effect produced on the agents by my letter in the Journal of the 3d inst. —that of reporting their mine. As to their denying my statement about the branches or droppers in the shaft, all I can say is, that I called at the mine, some time since, and the men then engaged in sinking the shaft produced the beautiful specimens of black and yellow ore of which I made mention in my first letter, at the same time informing me where they had discovered them—viz., in the two droppers, which they said were 6 in. wide.—A Shareholder, *Jan.* 12.

Calls.—Fairplay is informed that the vendor is liable for all calls made (advertised or not) prior to the date of transferring any of his interest; the transfer would not have been registered in the purchaser's name had he tendered it for that purpose on the day named, therefore there can no question arise as to the vendor's liability. This, however, shows purchasers should be on their guard before paying their money, and see that all calls due have been responded to. The purser in this case will, of course, refuse to register, and the purchaser may have some trouble in getting the vendor to pay, as he may allege that he sold at a time when no call had been actually declared.

Wheal Robins.—In the Journal of Saturday last it was stated that pitches had been solicited on Robin's lode at 1s. 3d. in 1*l.* It should be 1-3d (one-third); and which, being likely to make the discovery appear a more valuable one than it is (although very excellent), we have been requested to correct.

Eloin's Lamp.—In our next Journal, we believe, it will be announced where this new safety lamp can be obtained.

P. (Exeter).—The thorough reform of the Patent Law is not given up, although a slight amendment has been already obtained through the medium of the Great Seal Grants Act (14th and 15th Vic., cap. 82), as noticed in the *Mining Journal* last week. An association for procuring an amendment of the Patent Law, called the National Patent Law Amendment Association, with which Mr. Campin is connected, is still at work, full particulars of which may be obtained at his office, 156, Strand.

Jurisconsultus, on the Cost-book System, in our next.

Pentire Glaze Mines.—We have received a communication from Mr. Peet, the secretary to these mines, complaining of the omission of returns of lead ores during the last quarter in our usual list. We are at all times anxious to correct any inaccuracy, or supply a deficiency, in our statistical information, and have this week recorded the sales of ore, inadvertently omitted in our regular returns.

A. P. (Leith).—The Company of Copper Miners in England have as yet issued no prospectus for the creation of new capital: there is every probability, as soon as the arrangements pending with the Bank are concluded, that but little difficulty will be found in obtaining the requisite capital.

J. W. (Brettell-lane, Stourbridge).—We have not sufficient local knowledge of the Australian colonies to recommend either as a district in which such a speculation would succeed, but have no doubt all wants of the kind are well supplied, and that there is but little room for more establishments. If our correspondent has had any experience in the iron or other metal trade, in mining, or can turn his hand to any general active manual labour, there is no finer field for his exertions than South Australia. In new colonies labor is the great desideratum, and in the above prolific country any active young man, with steady perseverance, is sure to do well, and, in a few years, become independent.

An Inhabitant (Holywell) complains in bitter terms of Mr. Mostyn exacting such high dues from the Merllyn and Garreg Mines. The writer attributes the present depressed state of the district to the illiberality of the land owners; at the same time censures the parties concerned for yielding to the extortion, as prejudicial to future operations—the instance being adduced as an example.

Callington Mines.—We have received a long communication from a correspondent on the subject of these mines, the Kelly Bray lode and shaft, and the remarks of Capt. Lean, published in last week's Journal, for which however we have not space, and indeed some of the observations are too personally severe for publication. It is a question between the directors and their agent, and the former will doubtless take the necessary steps to see justice done. The writer observes that probably all our readers are not aware that Kelly Bray shaft is not a perpendicular one; had it been so, and operations commenced in sinking and rising previous to Capt. Lean taking office in 1850, his not dialling it might be somewhat excusable, but the shaft is sinking on the course of the lode, and in all probability when the same was dialled the sink and rise corresponded to each other. Miners, however, are well aware that lodes are very apt to change their bearing and underlay, and often split, a circumstance not at all unlikely in the neighbourhood of Kelly Bray; that Capt. Lean knows from experience that the lode at Holmbush Mine, which is parallel to Kelly Bray lode, has been found opening into two branches at several of the levels; and under these and other circumstances, Capt. Lean should have been on his guard, and kept up a close dialling in the shaft referred to. That some three or four months since a report from Capt. Lean stated that Kelly Bray shaft would be holed much sooner than they anticipated, and that at a more recent date he stated that it would be down to the 70 in a week. That it was these statements which deceived the directors and led them to believe that all was going on right, while their principal hope of success was in this part of Kelly Bray, when a doubt now arises if the point working on is in the Callington sett or not. He complains that Capt. Lean was entirely negligent of his duty, putting men to communicate from the shaft to the rise by a bore hole, without superintendence, and leaving work which required scientific management to be done quite at random.

R. C. M., we think, has nothing to fear; but the documents, coming so late, require a little consideration.

Yeoland Consols.—Sir: In looking over your Journal, I find by the Notices to Correspondents that a letter had been received, having reference to Yeoland Consols Mine, which might be inferred to have been written by me, as the initials are the same as my own. I beg to state that it was not, neither have I any knowledge of it.—J. Lean: *Horrabridge, Jan.* 13.

Cook's Kitchen Mine.—We have received another long communication from "Fair Play," on the subject of this mine, which we must decline, as lengthened correspondence on such subjects can be of no practical use, or forward, in the slightest degree, the interest of legitimate mining. The writer complains that Capt. Eudey having recommended Captain Vivian to the directors as agent, the latter turned round upon him, and made statements to his disadvantage; that he could greatly economise the workings, that 40 tons of tin could be raised per month, and a large profit be realised, while the costs were 120*l.* per month; that the directors believing all he said, did not employ a disinterested agent to inspect and report, and found themselves, at the end of Capt. Vivian's management, minus 7000*l.* or 8000*l.* That what tin was raised came from a lode worth 100*l.* per fm., discovered by Capt. Eudey, and the difficulties which, it is said, Capt. Vivian had to encounter were never in existence. He eulogises Capt. Joseph Lyle as having done much for the district and deserving well of every miner, as one of Cornwall's best supporters.

A Shareholder is anxious to learn the position of the British Mutual Gold Mining Company. The writer has addressed several letters to the company's office, but has not received any reply.

The request of A. J. B. (Warwick) shall be attended to.

J. E. (Etruria, Staffordshire).—A full description of the large engines and pumps for the drainage of the Haarlem Lake, was published in the *Mining Journal* on the 3d October, 1846, and of the duty performed, and other interesting particulars, Jan. 16 and Dec. 18, 1847. This engine has an 80-inch cylinder inside one of 144 inches, working 11 pumps, capable of raising 1360 cubic feet of water per minute, or nearly 2,000,000 cubic feet within the 24 hours, with a pressure of about 35 lbs. on the square inch, while it is estimated that the engine might be safely worked at 70 lbs. on the inch.

A Mine Surveyor (Scotland).—The price of the "Hand-book of Turning," published by Saunders and Otley, is 7s. 6d.

The Rawmarsh Colliery Explosion.—A correspondent directs our attention to the fact, that, at a meeting, held at Rotherham, to originate a subscription in aid of the sufferers by the late fearful explosion (which was announced by Mr. Badger, the coroner of the district, already to amount to more than 1500*l.*, and was expected to be increased to upwards of 2000*l.*), some severe remarks were made relative to the unchristian spirit of the vicar of Rotherham, in refusing to allow a collection to be made in the church in aid of this charitable purpose, while all other denominations of Christians in the town have responded to the wishes of the coroner's jury who investigated the melancholy occurence.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

*** It is particularly requested that all communications may be addressed—

To the Editor,
*Mining Journal Office*,
26, Fleet-street, London.

And Post-office orders made payable to Wm. Salmon Mansell, acting for the proprietors


# THE MINING JOURNAL

**Railway and Commercial Gazette.**

LONDON, JANUARY 17, 1852.

The Mining Journal is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.


In order to complete our subject of mines in their relation with railways, it is necessary that we lay before our readers the 83d, 84th, and 85th sections of the 8 and 9 Vic., c. 20. The 83d section declares, that for better ascertaining whether any mines are being or have been worked, so as to damage a railway or its works, the railway company may, after giving 24 hours' notice in writing to enter upon any lands through or near which the railway passes, wherein any such mines are being worked, or are supposed so to be, and to enter into and return from any such mines, or the works connected therewith. And for that purpose the company is empowered to make use of any apparatus or machinery belonging to the owner, &c., of such mines, and to use all necessary means for discovering the distance from the railway to the parts of such mines which are being or are about to be worked.

Section 83.—For better ascertaining whether any such mines are being worked, or have been worked so as to damage the railway or works, it shall be lawful for the company, after giving 24 hours' notice in writing, to enter upon any lands through or near which the railway passes, wherein any such mines are being worked, or are supposed to be, and to enter into and return from any such mines or the works connected therewith; and for that purpose it shall be lawful for them to make use of any apparatus or machinery belonging to the owner, lessee, or occupier of such mines, and to use all necessary means for discovering the distance from the railway to the parts of such mines which are being worked or about so to be.

By the 84th section, if any owner, &c., of any such mine shall refuse to allow any person appointed for that purpose by the railway company to enter into and inspect any such mines or works, in the manner mentioned in the 83d section, every person so offending shall for every such refusal forfeit to the railway company a sum not exceeding 20*l.*

Section 84.—If any such owner, lessee, or occupier of any such mine shall refuse to allow any person appointed by the company for that purpose to enter into and inspect any such mines or works in manner aforesaid, every person or persons so offending shall for every such refusal forfeit to the company a sum not exceeding 20*l.*

By the 85th section it is provided that if it appear that any such mines have been worked contrary to the provisions of the 8th and 9th Vic., c. 20, or the special Act of the railway company, such company may, if it thinks fit, give notice to the owner, &c., to construct such works and to adopt such means as may be necessary or proper for making safe the railway and preventing injury thereto. If after such notice any such owner, &c., do not forthwith proceed to construct the works necessary for making safe the railway, the railway company may themselves construct such works, and recover the expense thereof from such owner, &c., by action in any of the superior courts.

Section 85.—If it appear that any such mines have been worked contrary to the provisions of this or the special Act, the company may, if they think fit, give notice to the owner, lessee, or occupier thereof, to construct such works, and to adopt such means as may be necessary or proper for making safe the railway and preventing injury thereto; and if after such notice any such owner, lessee, or occupier do not forthwith proceed to construct the works necessary for making safe the railway, the company may themselves construct such works, and recover the expense thereof from such owner, lessee, or occupier by action in any of the superior courts.

The above sections complete the legislative enactments on this subject. It may, however, be remarked that the above statute, 8 and 9 Vic., c. 20, includes Ireland, but not Scotland, the latter being governed by the 8 and 9 Vic. c. 33, of which sections 70 to 78 relate to mines. They are, however, identical in terms with those we have laid before our readers as constituting the law of England.

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Opposed as we are, and ever have been, to all rates, taxes, and imposts which tend to fetter enterprise, restrict the employment of labour, and encumber those processes which have laid the foundation of all our commercial greatness, we cannot be witnesses of an attempt just made by two townships in the county of Lancaster to bring all mines of metallic minerals in the kingdom, so wisely exempted by all administrators of the laws hitherto, within the category of the poor laws and subject to their provisions, without entering our solemn protest against such measure. It appears that certain inhabitants of Upholland, and Billinge Higher End, in Lancashire, have taken it into their heads to memorialise the Poor Law Commissioners to take measures for obtaining an Act of Parliament to render the proprietors of *all* mines liable to contribute to the parochial rates in the same manner as coal mines. Their principal pleas are that many labourers employed in copper, lead, and other mines of metallic mineral, from numerous accidents become chargeable to the poor's rate, and that it is unjust to the owners of lands, buildings, and *coal mines*, who pay poor's rates, that all other mines should be exempt. A writer in the *Justice of the Peace* also warmly espouses the cause, and urges all rate-payers to bestir themselves for the abolition of the exemption, lest time should give rise to vested rights, and those who now enjoy the exemption should complain of a violation of public faith to interfere with a privilege enjoyed so long. These, and other arguments, are so out of place, and so untenable in character, that we think it will require but little effort on our part to refute them, and to show the salutary nature and national policy of the exemption of copper, lead, and tin mines from payment of parochial rates. The exemption has now been acted upon since the passing of the 43d Eliz., c. 2, and we think, if time is to render a custom in any way sacred, 250 years is somewhat ample for the purpose. In those days, in Cornwall and Devon, tin was the staple produce, which, with lead from Derbyshire and the north, constituted the whole metallic produce of England; and, in enumerating the lands, tenements, tithes, *coal mines*, and other heriditaments chargeable to poor's rate, very wisely, and with praiseworthy foresight omitted mines of metallic minerals, justly considering that the imposition of such a tax would cramp and, in many cases, annihilate that spirit of enterprise and adventure so absolutely necessary for their development.

We are no advocates for enforcing this impost, even on coal mines, for we think such undertakings, workable only by the aid of large capital, and at great risk of human life and destruction of property, should be leniently dealt with, and not classed equally in the category of taxation with lands, tithes, houses, mills, and manufactories, producing large revenues, comparatively without risk; but we are prepared to shew a most marked difference even between coal mines and those of copper, lead, and tin. When a seam of coal has once been discovered by boring, and a shaft, or shafts, sunk in proper localities for the most economical working and secure ventilation, the extraction of the coal can be effected with incessant regularity, and the cost of raising calculated to a farthing per ton, thus guaranteeing a certain and permanent income, subject, certainly, to those appalling catastrophes which so often desolate a whole district, but which are generally more painfully remarkable for the wholesale destruction of human life than for the spoiliation of any great extent of the productive capabilities of the mine. In prosecuting adventures for the discovery of deposits of metalliferous minerals, very different features present themselves. When lodes have been discovered at surface, however promising, the expenditure of large sums of money is necessary in the erection of machinery and buildings, purchase of materials, sinking shafts, driving levels, cross-courses, and numerous other costly operations, to ascertain the nature of the veins in depth; and, unfortunately, it is too often the case that, after the outlay of many thousands of pounds, disappointment is the only result, and the enterprise is necessarily abandoned.

The produce of copper in Cornwall and Devon may be taken in round numbers at 1,000,000*l.* per annum; and it is probable there is as large an amount of money paid for unproductive labour in profitless explorations, as for the productive labour to raise ores to the above amount. Under such circumstances, and forming, as this branch of speculative industry does, one of the best staple resources of the country, it would be most impolitic, even suicidal, to cramp and stifle that spirit of adventure in searching for metals by subjecting it to the payment of a tax from which it has been wisely and advisedly, for two centuries and a half, exempted. These remarks will bear with equal force on tin and lead mines, and we have no fear but that the Legislature will view the circumstances attendant on the subject in the same light as we have here attempted to describe them.

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At the Banking Institute, on Tuesday evening last, the "Law and Practice, with reference to crossed cheques," formed the subject of an interesting lecture by Mr. G. J. Shaw, the honorary solicitor, in the upper department of the Hall of Commerce, which has been taken by the council for the purposes of the Institute, and opened on Wednesday as a reading and news-room for the use of subscribers. Thomas Hewat, Esq., secretary of the Provincial Bank of Ireland, took the chair, and the business of the evening commenced by Mr. J. S. Dalton, the honorary secretary, reading a report of the proceedings of the committee since the last meeting. It stated that they had made every exertion to place the institute on a permanent basis; they had secured the apartment in which they then were, at a moderate rental; that a large accession had been made to their numbers, particularly by country members; that Thomas Haskey, Esq., the Governor of the Bank of England, took great interest in their progress, and allowed the free use of his name whenever it might prove advantageous; and that the 100 guinea prize, offered by J. W. Gilbart, Esq., F.R.S., General Manager of the London and Westminster Bank, for the most approved essay on the "best means of rendering the Great Exhibition useful to practical banking," had been paid to Mr. Granville Sharp, of the Norwich Bank, as the successful competitor. Mr. Shaw then commenced reading his paper, shewing the origin of the Bankers' Clearing House, established nearly a century, and that it was probable the practice of crossing cheques commenced with the clerks there for the purpose of identification. The custom existed among bankers themselves before being practised by their customers; but finding, by the mode of transacting business at the clearing-house, they could do with less cash in their till, they naturally encouraged the crossing cheques, in order to pass them through the clearing-house, instead of paying them at the counter. The most important point in Mr. Shaw's remarks, however, was that notwithstanding the practice tended to prevent fraud, recover lost cheques, and formed a document which was good evidence in a court of law, there was a question as to its legality.

After quoting several cases arising out of crossed cheques, to show the acknowledgment of the custom—Rothschild *v.* Cornish, Steward *v.* Leigh, Boddington and Sleintner *v.* Davies, and Alexander *v.* Birchfield—Mr. Shaw alluded to one now pending, in which Messrs. Coutts were defendants, in an action of damages for 2000*l.* In this case, the plaintiffs wished to pay this sum into the Bank of England to the account of the Receiver-General of the Court of Chancery, and, having some doubt of the honesty of the attorney employed, specially endorsed it to that effect; but drawing the cheque payable to him, or "bearer." He erased this endorsement, and crossed it with his own banker's name, who obtained payment; and he applied it fraudulently to his own use. The feature in this case was, that Sir Frederick Thesiger, in his argument for defendants, contended that if crossing a cheque restricted the payment to the house so designated, and took the right of demand from payee and bearer, it took it out of the exemption clause of the Stamp Act, and rendered bankers liable to heavy penalties. The evidence throughout was very conflicting; some bankers making a rule to reject every cheque with a double crossing, and others that it only rendered diligence necessary; and, if they were satisfied with the holder's explanation, they should pay it. The difficulties and uncertainties under which all parties connected with crossed cheques, under the present imperfect state of the law, were shown, and clearly animadverted on; and from Mr. Shaw's paper, and in a short discussion which followed its reading, it appeared almost the unanimous opinion that the law should be made definitive, according to the established custom, that bankers might know how far they were justified in paying cheques to "bearer," or in refusing payment, if crossed with another banker's name.

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We have to congratulate our readers on the new postal arrangement, by which a mail to the United States of America will be dispatched from Liverpool every Saturday morning, after the receipt of the London letters of the preceding evening. The daily growing importance of the commercial relations between this country and the States would of itself justify this determination: advices as to the state of the American markets, as well as to those of Great Britain, are of the highest importance to the merchants of both countries, and as is their importance, so is the value of their frequent transmission. But, beyond this, the great interests of the country growing up on the other side of the American continent, furnish us with motives sufficiently commanding to put ourselves in as frequent communication as possible with them—not only for the sake of the direct advantages of such intercourse, but also for the purpose of strengthening those bonds of amity and friendship which should hold the members of the great Saxon family together, how distant soever the regions which they inhabit. Governments are not always the first discerners of public wants; and if they were, are they of themselves always able to meet them? In this particular instance the convenience and participation of the merchant companies whose steam-ships are on the line was necessary to the carrying out of the measure. For our own part, we have been long of opinion that the merchants of England are entitled to a Pacific Ocean mail out and home every week, and we believe it will not be very long before they will have it. The British mails to America are, by the new arrangement, to be taken alternately to New York and Boston—thus varying the accommodation to those great ports.

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The news from the gold districts during the week are of the most exciting character; nor is there any room for any other belief, but that the production is of an extraordinary character, and with every prospect of continuous, new, and still richer discoveries. From California the intelligence is more satisfactory than it has yet been. By advices to 1st Dec., we learn that some extraordinary discoveries of gold had been made in Bear Valley, not in the ordinary quartz, but in a greasy magnesian talcose schist, which has become decomposed, and crumbles in the hand like slaked lime, disclosing the precious metal in abundance, and easily obtained by washing. A few Mexicans were the first discoverers, and obtained a quarter of a million dollars worth before the secret got wind. The place was soon beseiged by hundreds, and divided into 30 square feet sections, and a town immediately sprung up on the spot. At the old diggings, parties generally were doing well, averaging from $4 to $10 per day. At the Big Oak Flat diggings, the produce is rich—$17 from about 2 lbs. of quartz. One man took out a lump 7 lbs. weight—seven-eighths of it pure gold. The men make upon an average $4 per day. One large stone, weighing 68 ozs., from Mariposa, produced half its weight in gold.

From Port Philip, the news is still more important. At Buninyong, 80 miles from Melbourne, deposits had been discovered far exceeding in value any thing previously met with. The whole population were on the move towards the district, and the rivers for miles round proved rich in gold. One spot of limited extent was so rich that a space, 8 ft. square, was considered by the commissioner sufficient for each man, for which the license money was freely paid; 2000 persons are said to have congregated—all making more or less riches. One man had obtained 1500*l.* in a week; and another, a blacksmith, had got 1000*l.* A party of three men found 20 lbs. weight in one day; while another before breakfast raised 13 lbs. weight. The consequence was a far greater desertion from all ordinary occupations than had been witnessed at Sydney. Hundreds of all classes were leaving daily, including labourers, mechanics, clerks, shopkeepers, merchants, and professional men. Numbers are said to be making fortunes; but it is impossible to know all, as the amount of individual earnings are kept secret. At the Ballaral gold field, one lucky individual obtained 900*l.* worth in one day. The accounts from Bathurst state that an immense amount of gold has been taken from the Turon district; the banks of the river were occupied from its source to its junction with the Macquarie, a distance of 100 miles, and the men were getting from half to one ounce per day each. Many had been very successful in the mountain tops, picking the gold out with knives. The whole of the hills in the district appear to abound in gold, and will probably be productive for years to come. These accounts coming from Port Philip, where the gold discoveries are most recent, are certainly the most important and extraordinary of any which have yet reached this country. The *Anna Mary* arrived yesterday at Gravesend with 50,000*l.* in Australian gold, and the *Ralph Thompson* with a further large amount.

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Telegraphs in the United States.—The *Commonwealth* states that there are already in the United States and Canada more than 12,000 miles of wire, involving a capital of more than $3,000,000. To work these lines costs annually 720 tons of zinc, worth $57,600, more than 1,000,000 lbs. of nitric acid, worth $117,800, and $27,000 worth of mercury, besides a considerable value in sulphuric acid, &c. On the line from Pittsburgh to Cincinnati alone there were transmitted, in the year 1850, 364,559 paid despatches, and the revenue received was $73,278.

## MINING DURING THE PAST YEAR.

Having furnished our readers with the usual quarterly tabular statements, and shown the returns for 1851, as compared with the preceding year, also the respective dividends, we now proceed to notice the changes that have taken place in the various copper mines during the past year. As far as regards the sales at the public ticketing, Devon Consols has produced a larger quantity of ore and more money, though at a less average price per ton. Par Consols less ore, but of better quality, and rather less money. Carn Brea has receded above 800 tons, and nearly 6750*l.* in money. Tincroft has increased nearly 200 tons, and obtains 4*s.* 6*d.* per ton better price. The Great Consolidated Mines in the last quarter fell off one-half in tonnage and money from the preceding one in September month; the half-year shows equally the same result—only 2647 tons (13,165*l.*) against the year ending June, 1851, of 6777 tons (34,100*l.*); and June, 1850, 7896 tons (43,010*l.*) This is very much to be regretted—being one of Cornwall's deepest and most expensive mines, burthened with a vast quantity of water, which, but for it, would flow over and drown other mines adjacent, throwing thousands out of employ. It will be remembered by our readers that this concern was once the pride of Cornwall, yielding nearly one-third of a million sterling profit. United Mines, adjoining immediately south, show an increase on the quarter of 171 tons, and 625*l.* money, with a better average price for the half-year, which is so far encouraging, though it must be taken into account that it is a deep and expensive mine, and dependent in a great measure on the working of its neighbour.

North Roskear has fallen short in quantity and money; but has improved in the average price 5*s.* per ton for the ore, and 20*s.* per ton during the last quarter. This would indicate some productive workings in new ground, and the lodes and pitches to be considerably improved of late.

Wheal Buller goes on steadily to increase in quantity, though the average price per ton is lessened. The last quarterly sale was 1927 tons (9964*l.*); the preceding, 1506 tons (7845*l.*); the year preceding being 4288 tons (29,281*l.*) They are discovering considerably more ore than they are taking away.

Wheal Basset also has increased her quantity and money sale. The ore also is of a higher average—thus showing the means of continuing the present dividends.

West Caradon has progressed considerably, selling in the last quarter 4171 tons of copper ore for 9240*l.*, being an average of 7*l.* 18*s.* per ton—showing an improvement both in quantity and quality of the ore, which, leaving additional profit, enabled them to increase the bi-monthly dividend from 2*l.* 10*s.* to 4*l.* per share; the prospects at the mine are such that, at the present standard, the dividends for 1852 will exceed those of 1851.

Fowey Consols show a serious decline in the quantity of ore in each quarter of 1851. To end Dec. the sales were only 1156 tons, 6661*l.* 9*s.* 6*d.*, being an average of 5*l.* 15*s.* 3*d.* per ton, an increase of 13*s.* on that preceding; but we understand the prospects in this extensive concern are such, at present, that larger returns are not likely, unless some discovery is made.

Wheal Seton has advanced considerably, both in the quantity of ore and the value of it, during the past year, the average being about 4*l.* 15*s.* per ton, the last quarter yielding 1504 tons; the prospects have increased at a similar rate, therefore we contemplate their paying a larger amount of dividends this than the preceding year.

South Frances has retrograded, the ore realising, at least, 13*s.* 6*d.* per ton average less than in 1850, though, from its exceeding good quality, the last quarter's sale of 603 tons realised 7*l.* 10*s.* 9*d.* per ton, or 4544*l.* 19*s.*, which was a considerable falling off from the preceding sales; this caused them to declare a smaller dividend at the last account-day meeting, and without fresh discoveries the present year's dividends cannot be equal to those paid during 1851.

North Pool needs some new discovery, without which the dividends for 1852 will not equal those for the year just expired (they had to reduce their last dividend): the quantity of ore not only decreases, but the last quarter's average was only 3*l.* 1*s.* per ton—a falling off of 25 per cent. since the end of June, 1850.

South Caradon maintains its ground steadily, and has done so for the last three years; the last quarter's sale showed rather an increase in quantity, which realised 7*l.* 1*s.* per ton against 7*l.* 3*s.* of the preceding.

Treviskey has sold 1162 tons for 7390*l.* during the last half-year, commencing from July. The 12 months preceding was 2727 tons, 16,998*l.* (say 6*l.* 4*s.* 6*d.* per ton), the difference being 2*s.* 6*d.* per ton; the amount of future dividends will mainly depend on discoveries; the present ends are getting deep, and the reserves cannot be very extensive, still there is nothing to fear while they keep up their usual quantity of ore at the ticketings.

Perran St. George shows an increased quantity, though at reduced price; and, notwithstanding they are laying out considerable sums in the erection of a powerful steam-engine at Devonshire shaft; they realise profits, and have above 3000*l.* in hand, which accounts for their not recently declaring any dividend. Should the contemplated workings westward prove as successful in depth as anticipated, they cannot fail of again resuming the payment of handsome returns to the shareholders.

Alfred Consols progresses in the most favourable manner in all respects—increased quantities of ore, a considerably better price for it, and augmented dividends being the result. The last quarter's ore averaged 7*l.* 5*s.* 6*d.* per ton.

Tywarnhayle Mines come next in rotation, and we regret to observe that they are advertised in our columns for disposal, in consequence of the present shareholders not feeling inclined to pay any more calls for the purpose of prosecuting them deeper. They are not inspired by the great success met with at Great Wheal Towan, their adjoining neighbour on the north, where, at deeper levels, in 1803-4-5, they realised a profit of 168,000*l.* By reference to our Journal, it will be found that the Tywarnhayle Mines, for the years ending 1850 and 1851 (June), sold in copper ore alone at the public ticketings as follows:—

| | Tons. | Amount. | Av. per ton. |
|---|---|---|---|
| End of June, 1850 | 5784 | £21,422 19 6 | £3 14 0 |
| End of June, 1851 | 6123 | 23,214 10 0 | 3 16 0 |
| Quarter ending Sept. | 1233 | 4,347 0 0 | 3 10 6 |
| Quarter ending Dec. | 1539 | 5,198 19 6 | 3 7 6 |

Up to 1839, it will be in the recollection of numerous of our readers that part of this concern, then the United Hills, was paying regular and handsome dividends, some of the ore yielding 11*l.* 10*s.* and 12*l.* 10*s.* per ton. These facts will, doubtless, stimulate some of our friends in the mining world to exert themselves, and by the infusion of fresh nerves, energy, and capital, prove whether so many lodes as Tywarnhayle has been partially wrought upon at various levels, down to the 90 only, and above, are totally worthless below, where Great Towan, on the main lode, close adjoining, in three years amassed so much riches.

Wheal Friendship, in Devon, is increasing in the tonnage, though the average price realised is less than that of two preceding years. The amount enables them to declare dividends occasionally, and we understand 1852 is expected to do quite as much for the shareholders, if not more, than the year just closed has done.

South Tolgus sold its usual quantity of ore during the year, and at a better average price per ton. The last 561 tons, at 6*l.* 14*s.* per ton, produced 3754*l.* 17*s.* for the quarter. The prospects warrant the expectations of similar dividends this as in last year.

Levant Mine shows a falling off in price and quantity during the year. The late rate of dividend may probably be continued, and should a discovery take place, be augmented, the ores from this concern being of first-rate quality.

The Phœnix Mine has made an extraordinary start. It will be found, by reference to our Journal, that she appeared first among the copper mines as selling for one year ending—

| | | | | | | |
|---|---|---|---|---|---|---|
| June, 1849 | 81 tons, at £9 | 19 | 6 | = £867 | 18 | 0 |
| „ 1849 | 173 „ | 7 | 11 | 6 = 1310 | 8 | 0 |
| „ 1850 | 341 „ | 11 | 6 | 0 = 3857 | 2 | 6 |
| „ 1851 | 890 „ | 10 | 17 | 6 = 9680 | 15 | 0 |
| | | | | £15,656 | 3 | 6 |
| Quarter ending Sept. 1851 | 150 tons, at £10 | 16 | 6 | = 1625 | 9 | 0 |
| Ditto Dec., 1851 | 391 „ | 10 | 2 | 9 = 3961 | 16 | 6 |
| Total | | | | £21,243 | 9 | 0 |

The shares are principally held in Manchester; and we have frequently solicited to have the statements forwarded us for publication, especially the correct amount of dividends paid and in course of payment.

We must now refer generally to the other copper mines in our list. To particularise all, as we have done the foregoing, would occupy too much of our space. The mines having increased their sales during the past half-year are Treleigh Consols as to money, the produce being considerably better; Condurrow and Wheal Agar in price of the ore; East Pool in price, not quantity; West Providence, Marke Valley, and Gonamena, have increased during the year in quantity and amount of money.

Those supplying the usual quantity are—Holmbush, though at less price per ton, Cook's Kitchen, Callington, St. Aubyn and Grylls, and Bedford United.

Those which have retrograded, are Camborne Vean, Poldice to the extent of two-thirds in tonnage and amount, East Crofty, West Fowey, West Treasury, Wheal Ellen (considerably), Wheal Tremayne, Tresavean, Trethellan, Dolcoath, West Seton, Hawke's Point, Wheal Vyvyan, Wellington, and Wheal Comford; and the undermentioned have ceased working and disposed of the machinery:—Wheal Henry, East Tywarnhayle, Wheal Mary (Redruth), Tolcarne, East Godolphin, Garras, Montgomery Mines, Budnick Consols, Halloon (St. Columb), Caradon United, and Creegbraws. West Jewel contemplates doing so.

During the last quarter of the year 25 mines appeared in the ticketing list that had not done so for the preceding one, among which are Halamanning and Croft Gothal, Wheal Arthur, Prideaux Wood, Trebarvah, East Gannis Lake, North Downs, Pendarves and St. Aubyn, Gustavus, Wheal Harriet, Wheal Zion, Tryphena, Rosewarne, Tehidy, Treloweth, Penberthy Crofts, Lamin, Wheal Virgin, Godolphin Bridge, and Wheal Towan, all of which, with 10 others, only produced 964 tons of ore, realising 4455*l.* 4*s.*, twenty-two out of the lot being under 100*l.* each, nine under 200*l.* each, one below 300*l.*, two above that sum, one above 550*l.*, and Hingston Downs 735*l.*

## ON THE MINERAL FEATURES OF CERTAIN DISTRICTS OF CONNEMARA, COUNTY GALWAY.

BY ST. PIERRE FOLEY, M.E.

This part of Ireland has at last been aroused from its *sleep of ages* to an active search for the minerals contained within the fractures of its aqueous formation. The districts in which these trials are being made are Lemane Mountain, on the southern borders of the romantic scenery of Killery Bay; Glengola, two miles west of the town of Oughterard, south of the Clifden road; Bushceney, on the south-east of Glengola; Curraghduff, on the borders of Lake Corrib; Drumsnare, Gurthmare, and Brownville. All the above-named are holding out prospects of a good return, with the exception of one or two which are badly managed.

The metallic deposits of the above districts lie chiefly on the same meridian in bunches, pipes, and veins. The geological formation of the country is mountain limestone, Silurian rock, swinestone, grauwacke, and clay-slate. The veins of fractures are occasionally interrupted by dykes of porphyritic granite and hornblendic rocks. The metalliferous deposits for the most part are galena and lead ore of a rich description, which lie in fractures of the limestone, mostly in an east and west direction. There are some rake veins in the same formation which form cross-courses, &c. The gangue of the ore is barytes, fluor-spar, limestone-spar, blende, and mundic, with occasional lumps of copper ore. Iron pyrites, and minute veins of silver-lead, for the most part, lie in the grauwacke and clay-slate, formation.

My next communication will be on the general bearing, dip, and character of each locality, with the good and bad features of each vein and bunch.

## COPPER MINES OF LAKE SUPERIOR.

Having received from a correspondent on the spot a full account of the most recent position of the workings of several of the principal copper mines in the vicinity of Lake Superior, we lay before our readers the following details, which will be found interesting:—The Cliff Mine, on Keweenan Point, is now 63 fms. deep; the vein never looked better than at this point, and is generally rich throughout the mine. In the year 1850 the profits of the adventure amounted to $128,000; but for 1851 it will not reach that sum, as a considerable expenditure has taken place for the purchase and erection of a new steam-engine, with the necessary buildings. During the year 1852 they expect to raise copper sufficient to make the dividend about $130,000 per annum for the three years. The lode is 18 in. wide, bearing 27° west of north, with an underlie to the east of 10°. The vein stone consists of drusy quartz, calcareous spar, laumonite, pearlinite, and chlorite: even where not rich, it is spangled with crystals of native copper, disseminated throughout, producing from 5 to 7 per cent., but by stamping made to yield about 50 per cent. The rock in which the vein has been found most productive is a granular and amygdaloidal trap, capped with crystalline greenstone.

At the North America and Albion Mines the geological formation is very similar to that of the Cliff Mine, but the vein has not proved so rich as at the latter; the general opinion, however, is that great improvement will take place in depth and in further explorations. The North West Mine is expected soon to be numbered among the best mines in the district, and will, in all probability, return more copper than the Cliff, as there are three veins, all highly promising, as far as they have been explored. The geological features are somewhat different to that of the former mentioned mines; the ridge is greenstone, resting on a belt of conglomerate about 12 feet thick, beneath which is a formation of amygdaloidal and compact trap, in which the veins are situate. The three veins are 150 fms. apart at the present workings, but inclining towards each other going south, so as to form a junction in depth. The prospects in general are highly encouraging, native copper being in all cases largely disseminated in masses, sheets, and bunches. There is the North Western, and a great many other mines working on the "Point" on a limited scale, some of which will, probably, prove productive; but, owing to the depression of the money market, a great many suspended operations during the winter.

In the Ontonagon region there are also some rich copper mines; the Minesota is very productive in amygdaloidal trap, somewhat firm and compact, the vein running parallel with the cleavage of the formation, and averaging 3½ feet wide between the walls. Its direction is 50° east of north, with an underlie of 38° north. The veinstone consists of calcareous spar, chlorite, and epidote, with some silver, and often imbedded fragments of the walls. The first year of opening this mine 84¾ tons of ore were raised, giving 75 per cent. for copper. The Penenasla is also a good mine, and there are others not yet sufficiently open to pay, and for the same reason as before mentioned are working on a limited scale.

On Isle Royal there are two promising mines, known by the names of the Siskawet and the Ohio. There are on the shores of Lake Superior in all about 40 mines, and one 40 inch cylinder engine, placed in a proper situation, would drain the water from them all to a depth of 150 fathoms. The first steps taken to open a mine, after discovering a vein, is to sink a shaft from 50 to 100 ft. deep, and, if the ground is favourable, an adit is opened as low down as possible to take off the top water. If the indications are promising, the shaft is then sunk 200 or 300 ft. by horse power, working six or eight hours per day; and a steam-engine is only erected when stamps are necessary. Experienced miners consider that, by a careful selection of location by practical persons, three mines out of five would turn out profitable, paying from 25 to 40 per cent. on the outlay. All Government mineral lands are now sold at $1¼ per acre.

DRAINAGE OF THE HAARLEM LAKE.—We understand, with much regret, that the drainage of this lake, which was commenced in 1846, is likely, by adverse circumstances, to be delayed two or three years more, before the 50,000 or 60,000 acres of land covered by this vast sheet of water can be laid bare. Gigantic and proportionately powerful as was the engines furnished by Messrs. Harvey, of Hayle, and Messrs. Fox, of Perran, they have not been proof against accidents arising from the severe work they have had to perform. The boilers are leaky and out of order, and have been sent to Amsterdam for repairs, while several portions of the machinery have become unfit for service, and will have to be replaced. To add to these difficulties, a storm on the 4th and 5th inst. caused considerable injury to some of the dams, and great exertions were required to prevent the breaking in of the sea, and destroying the labour of three or four years.

NOVA SCOTIA MINERALS AND ROCKS.—Granite rocks, trap, and clay-slate predominate, particularly in the Cobequid Mountains. Within four miles of Halifax is a granite rock, 75 feet in circumference, weighing upwards of 150 tons, and poised so evenly on a flinty base of 12 inches, that the strength of one hand will put it in motion. Several extensive and beautiful grottoes are to be found in different parts of the coast—one at Pictou is 100 ft. long, with beautiful stalactites suspended from the roof; another at the Bay of Fundy, after passing a narrow entrance from the sea, expands into magnificent halls apparently adorned with brilliant gems. Varities of iron, copper, and lead ores are abundant, and we may expect that at no distant day this portion of the British dominions will become the great mining district of the New World. At Cape Breton there are extensive mines of coal, iron, copper, and lead in effective working—the iron ore is extremely rich. These mines are leased to the General Mining Association as tenants to the Crown and his late Royal Highness the Duke of York, at a rental of 3000*l.* per annum, since 1827; those of coal are the Albion, the Sydney, and the Bridport.

## THE MINERAL PRODUCTS OF AUSTRIA.

By the courtesy of a correspondent, we are enabled to give the following somewhat detailed statement of the different mineral products of Austria, as raised in various parts of the empire:—

| | | 1827. | 1837. | 1847. |
|---|---|---|---|---|
| Gold | *Marks* | 4,221 | 6,005 | 7,529 |
| Silver | | 81,704 | 96,207 | 114,601 |
| Mercury | *Tons* | 129 | 150 | 163 |
| Copper | | 1,760 | 2,192 | 2,749 |
| Lead | | 2,351 | 3,055 | 2,983 |
| Iron | | 66,885 | 84,415 | 138,818 |
| Cast-iron | | 9,190 | 9,749 | 21,678 |
| Sulphur | | 536 | 859 | 1,141 |
| Coals | | 143,305 | 225,715 | 664,880 |
| Green vitriol | | 1,438 | 1,859 | 2,004 |

Value of these and other minor items together—

| 1827. | 1837. | 1847. |
|---|---|---|
| £1,164,996 | £1,890,129 | £3,790,690 |

Since 1827 the gold produce has increased 75 per cent.; silver, 50 per cent.; iron, 100 per cent.; cast-iron, 300 per cent.; sulphur, 100 per cent.; and coals, 300 per cent. The only falling off is in lead, but in that the decrease does not exceed 5 per cent.

We complete these details by giving the statistical returns of the two most important articles—iron and coal—for the most favourable year of their workings—that is, 1847:—

IRON.

| | *From the Government Mines.* | *Private Mines.* |
|---|---|---|
| In Styria *Tons* | 15,478 | 22,248 |
| Carinthia | — | 29,306 |
| Bohemia | 2,591 | 13,662 |
| Moravia | — | 13,178 |
| Lombardy | — | 5,129 |
| Hungary | 7,376 | 19,650 |

COAL.

| | *From the Government Mines.* | *Private Mines.* |
|---|---|---|
| Lower Austria *Tons* | — | 61,705 |
| Styria | 6,112 | 32,783 |
| Carinthia | — | 38,022 |
| Bohemia | — | 332,340 |
| Moravia | — | 139,335 |
| Hungary | 19,986 | 11,294 |

The coal mines generally, with very unimportant exceptions, are the property of private individuals.

## MINING IN SOUTH AUSTRALIA—*(Continued)*.

GRANTING OF LAND AND MINERALS.—The Government keeps a party of surveyors, who visit different parts of the colony, and survey the land in allotments of about 80 acres each; but any person, on application to the surveyor-general, may have 640 acres (about a square mile) surveyed in one allotment. A list of these allotments is advertised in the *Government Gazette* three months before the sale, and at such sale the colonial treasurer acts as auctioneer, and puts up each allotment at 20*s.* per acre. If there are any offers above 20*s.* per acre, the allotment is sold to the highest bidder. Until the last six months the Government employed a mineral agent, who examined the allotments, and if any of them should be reported to be mineral sections, such sections sometimes sold at a very high price. I have known 10,000*l.* paid for a section of 80 acres. I am acquainted with a company who gave upwards of 21,000*l.* for 13 sections, which, because they adjoined the Kapunda Mines to the north, were adjudged as certain of containing rich lodes of ore. Any person, however, can have 20,000 acres surveyed in one allotment, and obtain it at 20*s.* per acre, without its being put up to an auction, by getting a special survey, and three or four such sections have been taken up. It appears to me, from examining the working of the present methods of granting land and mines, that the plan is very defective and objectionable, at least as far as it applies to mines, because in instances where very high sums are given, the capital being absorbed in the purchase, it is very difficult to get them to lay out further capital to work the lodes; and unless the veins are laden with metal to the very surface, leaving a profit on working it away, all chance of success vanishes, and the workings are abandoned. It would be well if a system could be introduced into the colony similar to that in use with reference to the Crown grants at home, where, I understand, for a sum of about 20*l.*, a reasonable extent as a mineral grant may be obtained. This would enable men of moderate means to possess mineral leases, who know something of the business of mining; while mineral grants can only now be bought by the wealthy, who are generally totally inexperienced in mining knowledge, to the exclusion of those who possess it. I believe such a principle would work well, not only for the colony and the public, but would greatly increase the revenue of the country. It would be well if such a feeling could find a response in the legislative council of this colony, but I am informed it never can. I am not, however, without hope, as we have now an elected Legislature, and some of the members have promised to bring forward or support a measure for the better regulation of mining grants. This would enable companies to invest capital in opening mines, instead of purchasing land supposed to contain minerals at enormously high prices, and thereby crippling their means, and causing valuable mining ground to lie dormant, and for all practical mining purposes entirely useless.

## MINING IN SPAIN.

The mining district of Moncayo, situated in Aragon, is represented as being rich in copper, silver, and lead ores, while the produce from some of the lodes partially worked upon would appear to hold out the prospect of an "El Dorado" at no future period, if but capital be applied. Within 16 miles from the locality to which our attention is directed, is the coal district of Torrelapaja, with copper ores, both as pyrites and oxides, in the immediate vicinity. The coal, however, which has only been worked at surface, would not appear to be of the first quality, although, in prosecuting the workings in depth, the general opinion entertained is that it will improve. There is however, in the district abundance of timber, the cost of charcoal being 24*s.* per ton. The lodes are stated as being regular in their general bearing, taking an east and west course, and from their dip and other matters pertaining to them, may be deemed of an encouraging nature for mining enterprise, while water-power is available, and of close access, for the purposes of a smelting establishment. The mine which has been brought under our immediate notice is that of Mensula, situate about 50 miles west of Saragossa, and 30 miles from the Imperial canal of Aragon, near the village of Calcena, on the eastern side of Moncayo. It is in course of working by a small body of adventurers, the capital expended being 6500*l.*, or 32*l.* 6*s.* 8*d.* per share, the mine being divided into 200 shares, the value of which has ranged from 125*l.* to 155*l.* per share within the past few months. The extent of the sett, which is held for an unlimited term, is about 1000 fms. in length, and 100 fms. in breadth, the rent of which is from 40*l.* to 50*l.* per annum, payable to the Government, there being no payment in the shape of dues or royalty to the landlord or owner of the soil. Three lodes have already been discovered within 120 yards, two of which have been proved at shallow levels to the extent of 250 fathoms in length. The lodes are found to dip at an angle of from 10° to 30°, and which is found to decrease generally in depth. The size of one of the lodes worked upon for copper does not appear at the depth of the present workings, 22 fms. from surface, to be more than 2 ft. Another, on which the operations have been mainly confined to surface, and which may be defined as a lead lode, and not containing the quantity of grey copper ore obtained from that first mentioned, is about 6 feet wide, and where grey copper ore is found containing 1100 ozs. of silver per ton of copper. The ores of the two lodes, which are 10 to 12 fms. distant apart, and which, from their dip, will form a junction at a depth of 15 to 20 fathoms at one point, consist of argentiferous grey copper ore and galena, but which minerals, although found in the same lode, form distinct or separate veins or branches, running side by side. The grey copper ore of the first-named lode, where it is found in the greatest abundance, has yielded on assay an average of 32 per cent. of copper, and 0·444 of silver, or, in other words, 100 tons of ore will yield 32 tons of pure or metallic copper, and each ton of copper, again, producing 500 ozs. of silver, or on the 100 tons of ore 16,000 ozs. of silver, being of the value of 3750*l.*, in addition to that of the copper obtained, which may be taken in rough figures at 2824*l.*, thus giving 6574*l.* for the 100 tons. The galena, or lead, obtained from the second-named lode contains, on an average, not more than 27½ ounces of silver per ton. The vein stone consists mainly of heavy spar and quartz, with carbonate of iron, the metallic earths being crystallised or compact; the country is red sandstone. Such is the information derived from a correspondent, whose communication we have endeavoured to put in shape, while we have only to convey to that gentleman and others, having local knowledge and possessing practical attainments, our desire to render the columns of the *Mining Journal* the means of conveying information, at the same time accessible and valuable to the home and foreign adventurer.

# Original Correspondence.

## MACHINES OF THE EXHIBITION.—No. VI.

### THE UNIVERSAL CONDENSING ENGINE.

Sir,—I have waited a considerable time before pursuing this subject, in order that if I had, unintentionally, made any erroneous statements in a matter of considerable nicety, complication, and extent, there might be full opportunity to correct them. Not wishing to be too severe at the first, I described the inventions in general, but quite intelligible, terms, giving neither the name of the machine nor of the inventor. I placed the matter solely upon its intrinsic merits, but the portrait was plain enough to be recognised by those whom it concerned. My business is now with the public, who had not the same advantages for knowing and feeling what I referred to. I have, therefore, to inform those who were forbidden to see the inventions, which were so admirably treated in Hyde Park, that they are the improvements so long and so consistently advocated by yourself as "Craddock's universal condensing engine." In the ensuing minute description of its particular merits, by which I purpose to do what little is in my power to supply the want of the ocular inspection denied at the Exhibition, I shall designate it simply "the universal condensing engine." Only one such engine has been invented, just as there is only one common condensing engine. Watt was the inventor of the latter; Craddock is the inventor of the former, and in such great inventions the name alone sufficiently indicates the author, whilst the title is more conveniently simplified, and we avoid the incorrect implication that there is some other inventor in existence. The epithet "universal" is the most proper distinction for an engine capable of condensing its steam in all situations where air is present. It is universal, so far as terrestrial engine-makers are concerned. Some philosophers tell us there is no atmosphere in the moon; this engine, therefore, would not, of course, condense there, but that is of less consequence, because I have not yet heard of any engineers making a descent upon our satellite, nor of any lunar railway companies being formed.

I am aware there are learned men of greater erratic power—a sort of comets of science, and on whom, from the solidity of their professed study, we should not, *a priori*, anticipate such levity of motion, who do not confine their attainments even within the solar system, but have learned, at the most immeasurable distances, what are the effective properties of matter, and teach how luminous nebulæ, so far off that arithmetic cannot sum the distance, are condensed inevitably by "mechanical laws"* into gravitative systems. The efficacy of Craddock's engine, and the correctness of its title in these places, we must leave to them. Our condensation is a narrower task, its universality being confined to engines moving on or beneath the surface of the earth, in positions where there is air to supply fire to produce steam, and, therefore, air to condense the steam so produced; and as this applicability is as extensive as the air we breathe, we may, without much danger of being chided for inaccuracy, accept the title which the inventor claims. It exhibits a new and important principle introduced into the steam-engine, and completely realised, and no intelligent man need be told what are the prospective effects of introducing a new, economical, and constantly available principle into such an agent. In fact, the greatness of the invention is so manifest, that I will at once admit I did not expect any reply would be made to the letters I have written upon it. I am aware there is not a man in the kingdom who values his reputation, from Stephenson down to Hensman, or, if I must descend lower, even to the editor of the *Artizan*, who I shall presently have to refer to, that could publicly venture to depreciate the importance of such a principle, realised as it is in complete and faultless practice, or could defend the treatment which it received at the hands of the Industrial Exhibition. Why, then, you will say, address a charge to men whom I knew would not dare to answer. For this considerate reason—to spare all such persons in future the trouble, so far at least as the circulation of your valuable Journal extends, of condemning *in private* what they do not venture to condemn before the world—to save their feelings the disagreeable task of saying in the ear what they cannot publish on the house top, and thereby materially assist them in maintaining their character as honest men.

I must also state, before proceeding to detail, that I have no interest whatever in these inventions, except as a unit of that public which has been so long defrauded of their advantages. Except from seeing his letters in your Journal, Mr. Craddock was entirely a stranger to me, until about six months since he forwarded me a copy of his lectures. Soon afterwards I had the opportunity of examining his engines and his models, at work and at rest, and the gratification of three or four interviews with the inventor. I found the works worthy of their author, and the author worthy of his works—an opinion of which time will develope the full force. But his patience and his prudence exceed mine. Had I been in his case I should at once have taken counsel's opinion whether an action would not lie against the committee of the Exhibition for breach of an implied contract. He made the application for space, and incurred much expense in preparing the models to fill it; but *because* they were not ready until a *few days* after the 1st of May they were rejected. We recollect the Swedish vase, the Californian lump of gold ore, and other captivating additions, which were admitted in *September*; but we need not refer to vases, gold companies nest eggs, nor to any other matters or gewgaws, native or foreign, admitted after the 1st of May; the committee could give the public a much more accurate list than I can do of the number of models and machines, *not* belonging to Mr. Craddock, which were admitted into the machine department *after that date*. In fact, the tortuous course is always one of danger, leading persons to wound themselves with their own weapons.

I have a letter before me from one of the authorities on the subject of the other inquiry—the refusal of steam to the admitted model. It is dated in June, and it assures the applicant that "if anything else *comes in* which requires a moving power, Mr. Craddock shall be thought of;" thus very inadvertently admitting that other people's machines could *come in* in June, although in May Mr. Craddock's *could not*. I should have subpœnaed every eminent man in the kingdom—if necessary the whole Institute of Civil Engineers, *en masse*—and made out the case from the mouths of its adversaries. They could not have stood mute in the witness-box; they must have spoken, and spoken out; and when they had proved that such a condenser as Mr. Craddock has constructed is the greatest addition which has been made to the steam-engine since the days of Watt, and when they had given their opinions as to whether it is likely or not to be attended with greater results than even Watt has been the author of, then the defendants might have brought their witnesses to make good, as best they could, the propriety of the act of keeping such an invention from public notice. Mr. Craddock has been more enduring, but that is no reason why I, or any man who has attained a knowledge of the facts, should remain a *particeps criminis*, by standing silent to see one individual oppressed and kept down by a multitude. I am no friend to the persecution of merit, however it may be in fashion, or according to form, and cannot look quietly on such un-English odds, without interfering for fair play.

We have all heard of rascals knocking a man down, and telling him he only injures himself when he complains of it. We have reason to be indignant when a public body of committeemen or traders, or whoever are the real culprits, range against a private person, and standing, like the statues of Gog and Magog, stupid and motionless on the threshold of improvement, bar ingress to the stream of national advancement, "neither going in themselves, nor suffering them who are entering to go in." I have become greatly interested in Mr. Craddock, as a man of singular acuteness, talent, and sobriety of judgment, with a sensitive integrity, not to be found everywhere in these days; and I shall endeavour to enable the public employers of steam-engines to estimate for themselves what he has accomplished, without troubling an engineer to hum-ha over the subject, and profess his ignorance, either real or pretended, of its merits. I propose to show that every small manufacturer who needs steam power may have an engine in the corner of his workshop occupying, boiler and all, a fraction of the present space, and consuming a fractional quantity of coal, using any chimney which is at hand, without the need of a "tall obelisk" to draw the fire. That every shipmaster to whom the term of voyage is an object may have an auxiliary engine, at a practicable cost for fuel, abstracting no more from the stowage than the gain of time will compensate—that our new mail packets may reach the golden sands of Australia without costing the nation 30,000*l.* per annum—that on an average the whole of the mail packet service might be carried on for as many hundreds yearly as it now costs thousands—that every railway in the kingdom may add one to two per cent. to its dividends by engrafting Mr. Craddock's engines on its rolling stock. Here the proportionate gain will be far less than in marine engines, because in railways the engine power has consumed but a fraction of the capital. On the sea there is no iron path to absorb preliminary millions. Her highway is free to all; and the main cost of navigation being on the vessel and the means of power, the gain will in this case be enormous. But even 1 per cent. on railway capital is not to be despised. Comparatively perfect as is the economy of the Cornish engine, those who have lately subscribed a testimonial to Mr. Williams for that energy which last year saved the Great Consolidated and United Mines from coming to a stand from the sheer cost of coal for drainage power, would not think their prospects less cheering if they knew they could work a 400-horse engine with the same fuel which now works a 250-horse. As to the State service, I will not show how the efficiency of war steamers could be enhanced by concentrating the vital power of motion, and burying it in security deep in the centre of the ship. Economy is no object here. Dockyards are kept in greater activity by futile experiments, and building useless vessels to be pulled to pieces. What is every one's business is no one's business; the business of the nation always, therefore, lags behind. Government is a refuge for the destitute, employed, as we notoriously know, in benevolently taking up what private men cast away. When a necessity arises for expending hundreds and thousands, instead of tens, it will then be time to be in earnest. My object is not with the receiving, but with the paying public, merely as a volunteer in their behalf to defend truth and science against perversion and self-interest; and though the cause may require as many letters as I have already written, I trust you can grant me space to do it justice; for nothing of more surpassing importance to the nation, both in a pecuniary and an intellectual sense, has ever yet been discussed in your valuable pages. We all know the struggles of Watt against prejudices which have descended in their full illiberality to his successors; but in his days science was more genuine and unadulterated, and his worst opponents were among the ignorant. It is many years since Mr. Babbage pointed out how the increasing tendency to trade in philosophy was degrading its character; and the treatment of Mr. Craddock is a miserable example of its effect.

The great mind of Watt would have been the first to recognise his merits, and take by the hand a brother who had outstripped himself in the path of honour. I do not intend to enter upon the comparative merits or credit due respectively to the inventors of the water and the air condensor, the novelty of each or the difficulties conquered, or to be conquered in completing them. This would involve a wide scope of subjects which different minds might differently estimate. He who first invades and grasps the bounties of Nature crowns his temples with a fresh wreath, which no future talent can outshine. Favoured with the fulness of her untasted sweets, the first inventor has a felicity of glory which even greater labour and greater thought can never afterwards attain. There is one Homer and there is one Watt, and the full voice of Nature having once been echoed, what follows sounds but the re-echo of the same; but, however ultimate opinions vary, there is no question of the fact that Craddock has done more than Watt has done, and that Watt, now living, would be the loudest in declaring it. I deal merely with the broad fact of the capacity for utility of the two condensers. I am not discussing the intrinsic difficulties overcome in each achievement, mine is a much more narrow task; I seek only the barest and most naked measure of justice for the latter fact to peel off the incrustations of falsehood with which it has been spattered, and admit it to stand as it is for the present use of men. The total sum of its utility, and its comparative abstractions, I leave to the hand of time. But before proceeding with the detail, I have undertaken, I think it proper to devote a few lines to explaining strictly what is the charge I have against the committee of the Great Exhibition. It is just to myself that I should be guarded against the imputation of making ungracious or unnecessary attacks, and it is due to them that I should give precisely what I consider their fault, and no more. I will, therefore, examine how it is the public have suffered through "ignorance, intention, or inattention," as advanced in my first letter.—*Jan.* 10.

David Mushet.

* Mantell's "Wonders of Geology."

## ON THE FORMATION AND THE REDUCTION OF THE AURIFEROUS QUARTZ ROCKS.—No. II.

Sir,—It must be borne in mind that primary rocks containing gold are the most common in Nature—indeed, all ferruginous quartzose granites, be they where they may, in Siberia, China, Africa, North and South America, Australia, &c., contain gold; therefore, we only require to know the existence of such rocks uncovered by sedimentary beds, and subject to decomposition, to predict the existence of gold. Much has been said and written of late regarding the discovery of gold in Australia, and that its existence had been long ago predicted on geological data. It would be exceedingly interesting to know what these data were. We can well conceive the possibility of a qualified person to express his opinion without hesitation on looking at specimens of granites and quartz from any given region; that provided such works be very extensive, and exposed to decomposition, &c., gold would be found in the detritus. There is scarcely a square mile of the *primary series* of rocks from Cape Horn to the northern part of America in which gold cannot be detected. The mere existence of gold in granites, gneiss, quartz, and clay-slates is so common as not to require more than a good practical knowledge of the ordinary character of such rocks to determine that point. The grand question always has been, and still is, to discover those localities wherein veins or deposits of gold exist sufficiently rich and abundant to pay the general cost of extraction. Primary rocks, barren of all traces of gold, are the exceptions, and more especially when impregnated with iron pyrites, &c. Let us take another variety of granite, porphyries, and compact clay-slates in which we detect schorl as a constant ingredient throughout the transition of the series. An intelligent and observing old "tinner," on looking at specimens of such rocks, would at once state that a country containing such will produce tin in the detritus and also in veins. These are natural conclusions founded on experimental data; but if a person presumes to give an opinion on the metalliferous quality of any given region, merely by means of palæontological data and geographical position, it is evidently a mere assumption without foundation, and cannot be called an opinion founded on real geological science. Those who have studied the general character of rocks, and have examined the greater portion of the dry part of our globe may, without much risk of error, predict those parts which may contain gold in both hemispheres, but such predictions *must be founded entirely on mineralogical data*; and to render them of any practical value, they *must be equally established on sound physical conditions*, totally irrespective of the character of fossilliferous rocks, or their geographical position. A scientific and practical periodical, like the *Mining Journal*, which contains such an immense mass of information on such a subject in its past volumns, ought to check some of those vague assumptions which are now in circulation, and should guide the mining capitalists to such speculations as are well founded, and presenting prospects of success—*i. e.*, a well-selected and secured mineral or gold property, managed by men of strict integrity and business habits, with the requisite knowledge.

*Austinfriars, Jan.* 12.

Evan Hopkins.

## THE LOSS OF THE "AMAZON"—SAFETY-VALVES.

Sir,—Being a constant reader of your Journal, and aware of your desire to serve the public as far as you can, I beg to send you a remark or two on the loss of this vessel, and steam-boiler explosions. Though the cause of this fine steamer taking fire appears to be generally ascribed to the heating of some part of the machinery, yet I am inclined to believe from the evidence of at least one witness, and my own experience in cases of spontaneous combustion, that this may have been another instance of the kind. It is unquestionably true that the engine bearings became hot, but it is equally so that the engineers were aware of that fact, and took the usual precautions to cool them; besides, they were so situated that it does not seem probable that the immediate cause of the fire was owing to them. The witness alluded to states that he saw the fire rise from the engineer's store-room. This was, unfortunately, too likely a place for spontaneous combustion, especially as there may have been an unusual quantity of warm oiled cotton wiping, in consequence of the heating of the machinery. Here, too, the smell from the smouldering and flaming cotton and oil would be intolerable, and being in the bow of the vessel would account for the appalling celerity of the flames. But it is at all times extremely hazardous to keep oiled cotton in any ordinary store at sea or land; rather than do so it is far better to burn it, for a confined and warm atmosphere favours the oxidisement of oiled cotton, which generates great heat, and speedily causes it to take fire. Any one may convince himself of this fact. He has only to oil a piece or so of cotton, expose it to a warm atmosphere (say a stove), then to lay it in a loose heap, where there is little air, when, if the temperature be tried with a thermometer, it will show a rapid increase of heat, and at last burst into flames.

While on this subject, I would just add a few words about safety-valves of steam-boilers. I believe eight-tenths of them to be sadly misnamed, being pregnant with destruction. For this reason, I had occasion some time ago, in consequence of a desirable improvement, to test the safety-valves of some copper boilers. While doing so, I mentioned casually to an engineer that I meant to put a 7 lb. weight which I held in my hand at the end of the lever of a safety-valve of one of the above boilers. As the steam was to be escaping all the while from a small opening, he considered it quite impossible to raise the steam-valve simultaneously with the escape of steam from the said opening. He was told there was nothing more easy, or even to burst the boiler, if required. He was invited to come and see the experiments; he did not, however, and I was left to make them, with the aid of a good stoker. Now, the opening referred to did not seem to have the slightest effect in preventing the rise in the temperature and consequent pressure; for in a very few minutes after attaining the ordinary boiling point a centigrade thermometer indicated a temperature of 122° (251° Fah.), showing that the pressure was 34 lbs. upon the square inch; as the main object was to see if the boilers could stand 7 lbs. per square inch, the experiments were then finished. This shows that steam may be blowing off from an opening in a steam-boiler, and even from a safety-valve, and yet the boiler may be scattered to pieces at the same time. The only sure way of preventing accidents of the kind is to have more than one safety-valve, and they ought to be of ample capacity for the quantity of steam that the boiler is capable of generating, and the condition of the boiler ought to be frequently examined.—*Jan.* 14.

B.

## RECENT ALTERATION IN THE PATENT LAWS.

Sir,—In your Journal of last week I find a notice of the recent alteration in the patent system, in which you state that you hope patent reformers will try to get as much as possible out of the Great Seal Grants Act; and I trust that, at all events, patent reform will get a large reduction of fees effected, as an immediate or ultimate consequence of the Act referred to, and that we shall get some sort of protection, without having to pay the whole amount of the fees, so that an inventor may try his invention with safety, without risking large sums of money. With this view I have addressed the Lord Chancellor, the Secretary of State, and the Board of Trade, soliciting that the date of patent may be recorded immediately before the sealing (at a cost of about 30*l.*), and that the Scotch and Irish patents may be made to bear date the same day as the English patent, so that this recording shall protect the invention for the three kingdoms.

A practical reform is loudly called for in the office of my Lord Privy Seal, who is still retained, which is the abolition of the practice of sealing patent warrants only on *one day a week*, which often delays a patentee for a whole week, or obliges him to pay extra fees, amounting to 50 per cent., in addition to the usual fees. It appears to me that the Secretary of State might, with equal reason, sign documents once a week only instead of daily.—*Jan.* 14.

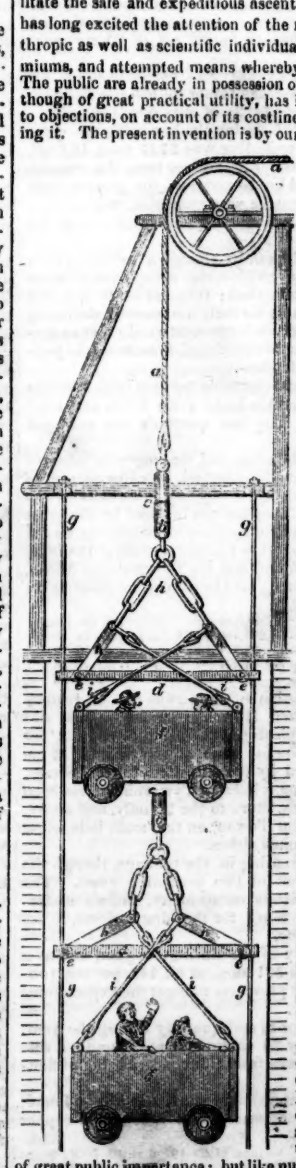
F. W. Campin.

## IRON RAILWAY SLEEPERS.

Sir,—A paragraph has been allowed to appear in your paper, to the effect that the South-Eastern Railway Company are about to take up their cast-iron sleepers and substitute creosoted timber sleepers on the North Kent, Ashford and Hastings, and Tunbridge Wells and Hastings lines. Not having received any communication from the company on the subject (although the engineer under whose advice they were laid down), I have seen the secretary of the South-Eastern Railway Company, and am enabled to give the statement the most unqualified contradiction. I will thank you to give publication to this letter, to which I will add that the result of the use of the iron sleepers (although experience has suggested some improvement in detail) is entirely satisfactory to me, and there is no doubt in my mind that the iron-road system will become generally adopted.—Peter W. Barlow: *Great George-street, Westminster, Jan.* 13.

## ELASTIC SAFETY-CAGE FOR MINES.

The invention and practical application of any machine which may facilitate the safe and expeditious ascent and descent of our colliers and miners has long excited the attention of the mining community, and several philanthropic as well as scientific individuals have at different periods offered premiums, and attempted means whereby so desirable an object may be effected. The public are already in possession of the invention of Mr. Fourdrinier; this, though of great practical utility, has in many instances been found to be open to objections, on account of its costliness, and the difficulty of effectually working it. The present invention is by our well-known correspondent, Mr. Andrew Smith, and we may observe that it is not his intention to patent it, but wishes to place it before the public as a means of saving life, economising time and labour, while greater security is afforded to our miners, and a saving of expenditure to the owners. The plan suggested by Mr. Smith, and which claims more especial attention, is that of the rope passing over the pulley, connecting it with the elastic connecting tube, to which is attached the bars and chains with the guide rods, by means of an eccentric jamb joint; while there are cross connecting-rods attached to the cage, which, with the machinery, are guided by the side ropes, galvanised under the patent obtained by Mr. Smith. The importance of this invention cannot be too highly appreciated—not only considering the economy consequent on its application, but likewise the simplicity and the perfect ease by which it can be managed, thus affording safety to life and property at an inconsiderable cost; in fact, if properly attended to, the machine cannot be damaged, unless wilful negligence or perverse carelessness is brought to bear on its utility. The accompanying diagram will fully explain the construction and principle of operation of the mechanism:—*a*, the rope passing over the pulley; *b*, elastic connecting tube; *c*, supposed fracture; *d*, guide bar; *e*, eccentric joint; *f*, cage; *g*, galvanised wire-rope guide rods; *h*, connecting levers and chains; and *i*, cross connecting rods attached to the cage. Should a fracture take place as represented at *c*, the eccentric jamb joint, *e*, which had previously been held fast by the weight of the cage, is brought into play, which, acting on the lever bars, *h*, force them against the guide rods, and, acting as a wedge, immediately arrest the descent of the cage. The cost of such a machine would be comparatively but trifling; while, by its use, safety to human life will be secured, and prevent hundreds of those calamitious and awfully sudden deaths which render so many homes desolate, and add accumulating burdens to the poor's rate of our colliery districts.




Mr. Andrew Smith, who is now about to leave this country as engineer to the Golden Mountain of Mariposa Mining Company of California, and to Colonel Frémont, has, during the past 30 years, done much for the advancement of science. He has taken out nearly 40 patents for new inventions—many of them of great public importance; but like numerous other men of great ingenuity, he has not been allowed quietly to reap the fruits of his talents and industry. The patent for machinery for the manufacture of wire rope, the "glorious uncertainty of the law" has deprived him of. He fitted the greater number of the ships in the Royal Navy with wire-rope lightning-conductors—the wire passing down the shrouds outside the vessel to the copper sheathing under water—when, under a Tory administration, his plan was superseded by another of sending the lightning down the mast through the hold and bottom of the ship to the keelson by strips of copper let into the masts, at a cost just ten times that of Mr. Smith's plan, and the country saddled with a pension of 300*l.* a year to the suggestor. Mr. Smith's patent mode of galvanising iron with zinc, his metallic bath for the generation of steam, and other inventions too numerous to be mentioned here, possess much merit, and have been duly appreciated. Among the machinery arranged by Mr. Smith for operation in the extraction of gold from the quartz rock, is a modification of Nasmyth's steam-hammer,

which will, doubtless, prove a most efficient machine for crushing the hardest rock to an impalpable powder, and thus secure the extraction of the whole, even the finest particles of the precious metal. He is now about to transfer the scene of his labours to the deserts of the far west, where we trust his means of activity will be enlarged, so that he may be enabled to work with benefit to himself and those around him, and return again to us loaded not only with fame, but the more substantial products of the gold regions of California.

## THE MAGNETIC TELEGRAPH.

Henley's patent magnetic telegraph, which was recently laid down at the Haigh Colliery, the property of the Earl of Balcarras and Crawford, continues, we are assured, to give great satisfaction, not only to the earl himself, but to the manager of the colliery, and the wire is now being extended so as to connect the Upholland Colliery, near Rainford, with that at Haigh. The distance between the works is nine miles. At Haigh there are nine instruments already in operation. They are connected by a single wire, coated with gutta percha, and laid in a trench a short distance below the surface of the ground. The signals and communications are at present confined to the surface, there being as yet no instrument in the pits. The wire is laid principally along the inclines, of which there are four, one of them being a mile and a half in length. When a waggon is loaded at any one of the pits, and is about to descend one of the self-acting inclines, a person telegraphs to the man who is at the other end of the incline a description of the quality of the coal that it contains. The points at the opposite extremity are then adjusted in accordance with such communication, the waggon travelling thereby without any interruption to its proper destination, either to the boat on the canal, or the tramroad which connects the colliery with the railway, or to any other convenient point of discharge, and the coal or Cannel is thus conveniently dispatched to Liverpool, Manchester, or elsewhere. The code of signals has been arranged by the Earl of Crawford himself, and it is printed for the guidance of the workmen employed on the estate. The wire has also been extended from the Upholland Colliery to Wigan, and along the earl's tramroad from Wigan to the Haigh Colliery.

The magnetic telegraph is progressing in other directions for purposes of general communication. It is now in full operation (but for private purposes only up to the present time) on the Lancashire and Yorkshire Railway, and throughout the entire distance from Liverpool to Manchester. It is being laid down also along a portion of the London and North-Western, and will presently be erected on the Midland Great Western of Ireland from Dublin to Galway, arrangements having been definitely entered into for that purpose. We are also informed that the Danish Government intend to adopt Henley's magnetic telegraph throughout the kingdom of Denmark. The short lines which are in operation here appear to have given considerable satisfaction—not only at the places already named, but on the Scottish Central, and in the tunnels of the Great Northern Railway. The experiments which were recently made with this instrument across the Channel met the entire approval of the engineers, both at Calais and Dover, and we are informed that upon this, and other occasions, the advantages of magnetic over voltaic electricity were fully developed. One or two instruments of this description have been for some time employed at Naples, and the King of the Sicilies is about to introduce them throughout his dominions.

Our readers are generally aware of the particulars of Mr. Henley's improved telegraph; and we do not, therefore, feel it necessary to enter upon the subject on this occasion. Those who are interested in the invention may see the machines in operation by calling at the temporary offices of the company, 4, New Broad-street. The three most important points which are claimed by the patentee as peculiar to his form of telegraph, are a perfectly dead beat of the needles, a freedom from accidental demagnetisation by atmospheric electricity, and the production and use of a current which to a great extent is independent of the influence of the weather. In a terrific thunder-storm which occurred at Naples, in the autumn of last year, the electric fire was flashing in such continuous streams in the telegraph office that the clerks were alarmed, and discontinued their operations until the fury of the elements had abated. At one moment the alarum was completely enveloped in a sheet of fire, and when the storm was over it refused to act; but it was found upon examination that this result was not due to the demagnetisation of the liberating needle, but to the fusion of a part of the fine connecting wire which entered the instrument—a casualty which, of course, was very readily repaired. We believe that upon the occasion referred to, not one of the needles was demagnetised. The inventor confidently declares that the current which he employs in these instruments is of such a character that he could effect through its medium a direct communication between this metropolis and Calcutta. We are not, of course, in a position to speak positively upon this subject in the absence of direct experiment, but we have no doubt that Mr. Henley would submit his arrangements to any reasonable test.

## New Patents.

### LIST OF PATENTS GRANTED DURING THE PAST WEEK.

W. Cook, Kingston-upon-Hull, for certain improvements in the construction of steam-engines, consisting of a rotatory circular valve for the regular admission of steam from the boiler alternately into the chambers of the two cylinders of double acting engines.

A. M. Dutholt, Paris, France, for an improved chemical combination of certain agents for obtaining a new plastic product.

J. A. Farina, Paris, for a process for manufacturing paper.

R. J. Smith, Islington, for certain improvements in machinery or apparatus for steering ships and other vessels.

### DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Walsh and Brierley, Halifax, double bar brace-slide.—J. and T. Brown, Bradford, pressing lever.—T. Johnson, Manchester, compound spring for a printing-press.—G. Lewis, Leicester, lock.—W. Pearse, Tavistock, roasting jack.—R. Gordon and J. Thompson, Stockport and Manchester, hollow wrought-iron yarn-beam, back-roller, and cloth beam.—S. Samuel, Houndsditch, cap-peak.

### PROVISIONAL REGISTRATION.

H. de Beaufort, Great Ryder-street, measuring indicator.—*Mechanics' Magazine.*

## ACCIDENTS.

*Wigan.*—A dreadful explosion of fire-damp occurred on yesterday week at Norbury Hall Colliery, Pemberton, held in trust by the executors of the late Mr. John Daglish, of that place. No less than sixteen men were burned, but none were killed on the spot: nine, however, were so severely injured, that they were obliged to be taken home, and the best surgical assistance in the neighbourhood was immediately brought to their aid; but John Bromielow, aged 20, and J. Worthington, also a young man, after excruciating torture, expired on Monday; and J. Winnard and T. Worthington are not expected to recover. The other sufferers are G. and R. Bromielow, farther and brother to one of the deceased, W. Dauber, W. Fairhurst, and J. Berry, a boy. These are badly burned, and it will be long ere they recover.

*Sunderland.*—W. Brodie was killed by a fall of roof at the Murton Colliery.

*St. Helen's.*—C. Needham was killed at the Gerard's Bridge Colliery.

*Hindley.*—J. Horrocks was killed by a fall of coal at Messrs. Ackers's, Bickershaw Colliery.

*Wheeley*—J. Moran was killed by falling down the shaft at Messrs. Wright and Taylors colliery, at the Cheshire Holes.

*Barnsley.*—C. Chambers was killed by a fall of coal at Messrs. Day and Turnbull's Harborough Pit.

*Merthyr.*—J. Daniel was killed by a fall of coal at Gellygare.

*Dowlais.*—Two miners (father and son) were sadly injured by an explosion in the Dowlais Company's Cwmbargoed Balance-pit.


TO PROPRIETORS OF STEAM-ENGINES, STEAM-PACKET COMPANIES, BREWERS, AND COAL MERCHANTS.

In consequence of Notice issued under the Sewers Act of 1851, that on and after the 1st day of January, 1852, every furnace employed in the working of steam-engines shall be altered so as to consume its own smoke, the Undersigned would be glad to enter into an ARRANGEMENT with Proprietors of Steam engines, Coal Merchants, or any party requiring coal, for a SUPPLY of their GELLIA STEAM-PACKET COAL, shipped at Swansea, which is perfectly free from smoke, thereby avoiding the necessity of altering their existing arrangements. RICHARD & GLASBROOK. 38

*** The coal has been satisfactorily tested at Portsmouth, and is in extensive use at one of the largest breweries in South Wales, as also by several steam engines.

Swansea, Dec. 22, 1851.

TO IRONMASTERS, RAILWAY DIRECTORS, ENGINEERS, and FOUNDERS.—The SUBSCRIBER having been appointed SOLE AGENT in LONDON for the SALE of Mr. MORRIES STIRLING'S PATENT IRON, begs to intimate that he is prepared to SUPPLY Railway Companies, Engineers, and Founders, with the PATENT MALLEABLE and TOUGHENED CAST-IRON, and that all orders addressed to him for these, and also for RAILS, with Hardened Surfaces, shall have his prompt attention.

Specimens of the different Irons shewn, and every information afforded, on application. Information as to the terms of License under Mr. Stirling's Patents will be given by the Subscriber, and also by Mr. JEE, C.E., 6, John-street, Adelphi. A. MACNAUGHT.

OFFICES,—9, Queen-street-place, Upper Thames-street.

WAREHOUSES,—Paul's Wharf, 25, Upper Thames-street. 39

ED. J. DENT has REMOVED from 82 to 61, STRAND (being 21 doors nearer to Charing-cross, and directly opposite Bedford-street), and solicits an INSPECTION of his extensive STOCK of CHRONOMETERS, WATCHES, and CLOCKS, as above; also at No. 33, COCKSPUR-STREET, and No. 34, ROYAL EXCHANGE (Clock Tower area). 40

WHEAL LANGFORD and BARING UNITED.—At a MEETING of the Committee of Management, held at the offices of the Company, 34, Threadneedle-street, this 26th day of December, 1851,

R. W. DARE, Esq., in the chair,

Present—Messrs. Broad, Gregory, Lynch, Moody, Barnard, and Vivian,

Moved by Mr. Gregory, seconded by Mr. Barnard, and carried unanimously,—

That a Special General Meeting of this company be called for Thursday, the 29th day of January, 1852, to forfeit all shares on which the call of 2s. 6d. per share shall not have been paid, and that proceedings be then adopted to forfeit such shares, and that they be then and there declared forfeited.

Moved by Mr. Moody, seconded by Mr. Vivian, and carried unanimously,

That your committee, considering it desirable and conducive to the interests of this Company to reduce the number of the shares from 6000 to 1200, making each existing paid-up certificate of five shares equivalent to one share of £3 2s. 6d.

Moved by Mr. Broad, seconded by Mr. Gregory, and carried unanimously,— 41

That a copy of the foregoing resolutions be advertised in the *Daily News*, and in the *Mining Journal* for four successive weeks.

Moved by Mr. Broad, seconded by Mr. Moody, and carried unanimously,—

That Mr. Gregory be appointed to assist Mr. Clench in auditing the accounts, in the place of Mr. Manuel, resigned. By order of the Committee.

HENRY MOLYNEUX, Secretary.

WHEAL SURPRISE (COPPER).—Divided into 4000 shares.

*NOW AT WORK ON THE COST-BOOK SYSTEM.* 42

This mine is situate in the parish of Whitchurch, near Tavistock, in the county of Devon, and extends a distance of 600 fathoms east and west, on the course of the lodes, joining Devon Burra Burra, and running in the same channel with, and parallel to, the lodes of the most productive mines in the Tavistock district—namely, Great Wheal Friendship on the north, which has raised £1,136,662 worth of ore; near, and in the same direction as the Devon Great Consols, Wheal Jack Thomas, Bedford United, Wheal Crebor, Crowndale, Gunnis Lake, &c., lodes which have not only proved productive of immense quantities of copper ore, but paid handsome profits to the adventurers.

Taking into consideration the favourable position of this sett, the strata of ground approximating the granite, the number and character of the lodes, the supply of water-power available for mechanical and other purposes, are in themselves sufficient to command the most favourable result.

Mining operations have been commenced, and preparations are now making for the erection of a powerful water-wheel, in order to prosecute the works with vigour: and it is confidently anticipated that the lodes will soon be developed to a profitable extent.

Application for the unappropriated shares, with copies of reports and all particulars, to be made to T. Fuller and Co., 51, Threadneedle-street, London.

BRAICH GOCH SLATE AND SLAB QUARRIES, TALY-LLYN, MERIONETHSHIRE, NORTH-WALES.

Now being worked on the Cost-book Principle.

Capital £14,000, in shares of £1 each.—Deposit 10s. per share. 43

SECRETARY—Mr. John Fish.

OFFICES,—No. 4, CUSHION-COURT, OLD BROAD-STREET, LONDON.

The above extensive quarries having been formed into a company, as advertised a short time since, have recently been joined by some highly-respectable gentlemen, who, after a careful investigation into the merits and value of the undertaking, and also of the rules and regulations under which it is conducted, have entered upon the committee of management.

The committee now OFFERS to respectable parties the UNDISPOSED SHARES, by transfers only. The lucrative character of the undertaking may be relied upon with certainty. A dividend on the amount paid upon the shares will be made by July next.

Prospectuses and shares may be obtained of the Secretary, at the offices, 4, Cushion-court, Old Broad-street; of the solicitor, Philip Johnson, Esq., 9, Lincoln's Inn-fields; Messrs. Brooks, and Co., 269, Piccadilly; and at the Gloucester Slate-Works, where samples of slate and slabs may also be seen.—Prospectuses and shares may also be had of the under-mentioned brokers:—Messrs. James Lane, 33, Threadneedle-street; M. Francis and Co., 1, Crown-court, Threadneedle-street; Hughson and Dobson, Royal Exchange, Edinburgh; J. Power, 22, Fownes-street, Dublin; J. A. Eadon, Sheffield.

ANGLO-CALIFORNIAN GOLD MINING COMPANY.—At an EXTRAORDINARY MEETING of the above Company, held at the Freemason's Tavern, on 14th inst., the following resolutions were carried unanimously:

1. That the report of the Directors be received and adopted.
2. That the Board of Directors be empowered to adopt such measures for the recovery of the abstracted books and documents as may be expedient, and to take such proceedings against Mr. Luke Williams as their proper legal advisers may recommend. 44
3. That this meeting ratifies and confirms the acts of such of the present Board of Directors as acted prior to complete registration.
4. That this meeting acknowledges the past services of such of the present board of directors as acted prior to complete registration, and in order to testify a due sense of the obligation, votes 2000 shares to each of these gentlemen.
5. That a sum not exceeding 120 guineas be annually set apart out of the funds of the company for the remuneration of the board of directors, and for the payment of the travelling expenses of the provincial directors, subject to the provisions of the Deed of Constitution in such behalf, and that such salary commence from the date of increase in the directory.
6. That 2500 free shares in this company be granted to the chairman and board of directors for the time being, in trust for the company, with power to apply the annual dividends and profits of the same, or so much thereof, and in such proportions, as they shall from time to time think fit, in the remuneration of the services of the resident director and other officers of the company in California, and with power to transfer to the absolute use of Sir Henry Vere Huntley any portion not exceeding one moiety of the said 2500 shares, in the event of his retirement from office with the approbation of the board of directors.
7. That an unanimous vote of thanks be given by this meeting of shareholders to the chairman, for his able conduct and urbanity in the chair. By order,

GEORGE F. GOODMAN, Secretary *ad interim.*

PORT PHILIP GOLD COMPANY.

ENGINEERS.

Messrs. John Taylor and Sons, 6, Queen-street-place, Upper Thames-street. 45

A COMPANY is now FORMING under our management for the purpose of WORKING GOLD MINES near MELBOURNE, PORT PHILIP, in AUSTRALIA, and establishing REDUCTION WORKS.

Prospectuses, with the names of directors, &c., will be ready in a few days, and will be duly advertised.—Jan. 16, 1852. JOHN TAYLOR AND SONS.

BRITISH AUSTRALIAN GOLD MINING COMPANY.—The Committee of Management inform the public that, having this day completed the allotment of all the shares, the LETTERS of ALLOTMENT will be POSTED TO-MORROW (SATURDAY) for both town and country. 46

They regret to have been unable to comply with a great number of applications in excess of the number to be allotted, and have been compelled to make proportionate reductions in the allotments issued. By order,

London, 26, Moorgate-street, Jan. 16, 1852. H. A. DRAKE, Secretary.

THE AUSTRALIAN FREEHOLD GOLD MINE.

In 100,000 parts, or shares, of £1 each.

No Deed required to be signed. The shareholders liability limited to the amount of their shares. The estate purchased is freehold—is certified to abound with gold quartz, and is held under a grant from the Crown. Of large extent. Protected by our colonial laws. Facilities of communication excellent. 47

TRUSTEES.

JOHN LULWYCHE, Esq.

JOHN ALFRED CHOWNE, Esq. | JOHN BERTRAM ORD, Esq.

COMMITTEE OF MANAGEMENT.

JOHN DAVID BARRY, Esq., one of the Managing Directors of the Orleans and Bordeaux Railway, and a Director of the Tours and Nantes Railway

P. SOMERSET BUTLER, Esq., M.P.

Major HAWKES, York-street, Portman-square

Sir WILLIAM BACON JOHNSTON, Bart.

JOHN BERTRAM ORD, Esq., Westwood Hall, Northumberland

JOHN HENRY PALSGRAVE, Esq, Paris

ROWAND RONALD, Esq., Manchester square

Sir CAVENDISH STUART RUMBOLD, Bart.

EDWARD RUDSTIN READ, Esq., Wellington-terrace, St. John's Wood, and of York

The COMTE DE LA PINCONNIÈRE (formerly a Peer of France), President of the Tours and Nantes Railway Company, and a Director of the Orleans and Bordeaux Railway

AUDITORS.

George Hoare, Esq., Comptroller of Her Majesty's Customs, London

Samuel P. Ward, Esq., Director of the National Guardian Assurance Office.

BANKERS.

LONDON—Heywood, Kennard, and Co., Lombard-street; Commercial Bank of London.

PARIS—Edward Blount and Co.

SOLICITORS.

LONDON—Messrs. Jenkinson, Sweeting, and Jenkinson, Lombard-street.

SYDNEY, New South Wales—Messrs. Norton, Son, and Barker.

SECRETARY (in London)—William Pulsford, Esq.

TEMPORARY OFFICES—10, Old Jewry Chambers, London.

SECRETARY *pro tem.* (in Paris)—Monsieur A. Godart (avoué), Secretary to the Railway from Charleroy to the Frontiers of France.

OFFICES *pro tem.*—13, Rue Grange Batelliere.

BROKERS.

*London*—Messrs. Price and Brown, No. 4, Change-alley
*Liverpool*—Messrs. Neilson
*Leeds*—Messrs. Charles Beardshaw & Co.
*Manchester*—Thomas Knight, Esq.
*Birmingham*—Messrs. Lane and Perry
*Bolton*—James Gorton, Esq.
*Glasgow*—A. Kerr, Esq., 3, Exchange-place
*Edinburgh*—Messrs. Hughson and Dobson, Royal Exchange

The sum of £1 per share, the full amount, will be payable on the allotment of shares, after which the bankers' receipts will be exchanged for certificates.

Applications for shares to be made to the above-named brokers, or to the secretary, at the temporary offices of the company, where prospectuses may be obtained.

GOLD MINES.—W. CROSSKILL, Ironworks, Beverley, Yorkshire, has on show, and in motion when required to prove their capabilities, his PATENT MILLS to GRIND MINERAL ORES. Two mills will grind two tons of gold ore per hour to powder with eight horses. W. C. will also furnish steam-engines, with very simple boilers, to raise steam by either wood or coal, mounted to work on carriages, so that no one carriage has to carry more than 30 cwts. W. C. will engage to furnish the whole, with duplicate grinding parts warranted to grind 50,000 tons of ore, for the sum of £1000. The wearing parts can be replaced for 2d. per ton of ore. The mills are so simple and strong that they cannot be broken. Duplicate wearing parts, would fit either mill in case of accident, and can be had for £50 extra. 48

SMOKE-CONSUMING FURNACES (PETTITT'S PATENT), for Brass and Iron Foundries, Glass-houses, Alkali, Gas, and Lead Works, and for the Roasting and Smelting of Ores, &c.—The above FURNACES effect a large SAVING in FUEL, by completely consuming the smoke, and being of the most simple construction (requiring no moving machinery), can be erected at a cheaper rate than existing furnaces. The patentee is prepared to GRANT LICENSES under this valuable patent, for which, and any further information, apply to Mr. H. Green, No. 145, Upper Thames-street. 49

STEAM TO INDIA, CHINA, &c.—Particulars of the regular MONTHLY MAIL STEAM CONVEYANCE, AND OF THE ADDITIONAL LINES OF COMMUNICATION, NOW ESTABLISHED BY THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY 50

with the EAST, &c. &c. The Company book PASSENGERS, and receive GOODS and PARCELS, as heretofore, for CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG KONG, by their steamers, starting from SOUTHAMPTON on the 20th of every month, and from SUEZ on or about the 8th of the month.

The next extra steamer will be dispatched from Southampton for Alexandria, on the 3d of April next, in combination with an extra steamer, to leave Calcutta on or about the 20th of March. Passengers may be booked, and goods and parcels forwarded by these extra steamers to or from SOUTHAMPTON, ALEXANDRIA, ADEN, CEYLON, MADRAS, and CALCUTTA.

BOMBAY.—The Company will book passengers throughout from SOUTHAMPTON to BOMBAY by their steamers leaving England on the 20th February, 20th March, and of alternate months thereafter—such passengers being conveyed from ADEN to BOMBAY by their steamers appointed to leave BOMBAY on the 17th February, 1st April, and 1st of alternate months thereafter, and affording, in connection with the steamers leaving CALCUTTA on the 8th February, 2 th March, and of alternate months thereafter, direct conveyance for passengers, parcels, and goods from BOMBAY and WESTERN INDIA.

Passengers for Bombay can also proceed by this Company's steamers of the 20th of the month to Malta, thence to Alexandria, by Her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA: On the 20th and 29th of every month.—CONSTANTINOPLE: On the 29th of the month.—ALEXANDRIA: On the 20th of the month.—(The rates of passage-money on these lines have been materially reduced).

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

N.B.—Steam ships of the Company now ply direct between Calcutta, Penang, Singapore, and Hong Kong, and between Hong Kong and Shanghae.

For further information and tariffs of the Company's recently revised and reduced rates of passage money and freight, and for plans of the vessels, and to secure passages, &c., apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

LONDON TO DUBLIN (VIA HOLYHEAD) in THIRTEEN HOURS AND A HALF.

THREE COMMUNICATIONS DAILY ON WEEK DAYS—TWO ON SUNDAYS. 51

SEA PASSAGE, FOUR HOURS AND A HALF.

First class, £3; second, £2.—Return Tickets (available for a fortnight), first class, £4 10s.; second, £3.—Children under 12, half price.

For full particulars of the booking-through system between England and Ireland, see Bradshaw's Guide, p. 122; Walsh's Irish Guide, p. 20: Fisher's Irish Guide, p. 2.

AMERICAN ANTI-FRICTION POWER,—for which was awarded the GREAT COUNCIL MEDAL at the late Exhibition.

The above INVENTION is fully PROTECTED by PATENT in EUROPE, AMERICA, and the COLONIES abroad.

In America this POWER is APPLIED to the following ENGINES and MACHINES, various examples of which are on view at the office:—For Punching and Shearing Metals—Presses for Paper, Cloth, Cotton Goods, Tobacco, Linseed, and other Vegetable Oils, Sperm and Animal Oils, Wine and Vegetable Pulps, as Beet-root, &c.—Embossing Machines—Printing and Stamping Presses—Engines for Moulding Glass, Earthenware, Bricks, Gutta Percha, &c.—Corrugating Metals—Straightening Railway Bars—Jack Screws—Forcing Railway Wheels on Axles—Railway Breaks—Hoisting Weights—Drawing Piles and Tree Stumps—Seal and Letter Copying Presses—Saw-mill Dogs—Vices—Rivet and Spike and Nail Machinery—Bolt and Nut Machines—Steel-pen Cutters—Striking up Tin Plate—Jewellery Work, &c.

Engines and machines for the above purposes will be kept constantly on hand. 52

Its application to machinery for other purposes, as raising Sunken Vessels, Graving Docks, &c., will be arranged for on liberal terms.

Particulars may be had, and machinery inspected, on application to Mr. Gwynne, 38, Parliament-street, Westminster.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON AND CO., PENHALLICK, near REDRUTH, CORNWALL, MANUFACTURERS of FUSE of every size and length (as exhibited in the Great Exhibition of 1851), beg to inform their Friends in Cornwall, Devon, Wales, Ireland, and every other part of the Globe, that they are prepared to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE of their own manufacture, and upon warrant that it will be proved equal to, if not better, than any that is to be procured elsewhere, and that Mr. J. R. PIKE is now upon his journey through the United Kingdom, and will call to solicit further orders, which they are requested to reserve, or otherwise apply by letter, direct to the Manufactory. 53

COPELAND'S SAFETY BLASTING CARTRIDGES.—G. COPELAND, Pendennis, Falmouth, is prepared to SUPPLY Proprietors of Mines, Quarries, Collieries, Railway Contractors, and others, with his BLASTING CARTRIDGES (which guarantee safety to the workmen) at an approximating price of loose gunpowder—viz., in sizes from 1½d. each and upwards, according to weight.

These cartridges are extensively used, and have been found valuable, particularly in subterranean operations, and in wet and troublesome ground.

Shippers for the gold regions, where they have been used for blasting the quartz, will find them worth attention. 54

Full particulars may be had on application.

ASSAY OFFICE AND LABORATORY, 23, HAWLEY-ROAD, KENTISH TOWN—conducted by Mr. MITCHELL, F.C.S., author of "Manual of Practical Assaying," &c.—Mr. MITCHELL begs to inform the Mining and Manufacturing Public, and Bullion and Metal Brokers generally, that he continues to conduct ASSAYS and ANALYSES of MINERALS, METALS, SOILS, FURNACE and all other MANUFACTURING PRODUCTS.—ADVICE to PATENTEES and MANUFACTURERS on all MATTERS involving a knowledge of Chemistry. 55

INSTRUCTION, as usual, in ASSAYING, ANALYSIS, and METALLURGICAL and MANUFACTURING CHEMISTRY.—23, Hawley-road, Kentish Town.

STIRLING'S PATENTS FOR IMPROVEMENTS IN IRON.—1. TOUGHENED CAST-IRON, which is double the strength of ordinary cast-iron, and only 10s. to 12s. per ton extra.

2. ANTI-LAMINATING IRON, for RAILS and TIRES, &c., at an extra price of from 7s. 6d. to 10s. per ton. Also IMPROVEMENTS in the MAKING of WROUGHT-IRON—saving one process to the manufacturer.

The following Iron Manufacturers are duly LICENSED to MAKE the IRON:— 56

| | | |
|---|---|---|
| Messrs. BAIRDS' | Gartsherrie, Glasgow. | |
| The CLYDE IRON COMPANY | ditto | ditto |
| The FIRTH IRON COMPANY | ditto | ditto |
| The HERSLEY COMPANY | Tipton, Staffordshire. | |
| Messrs. LLOYDS, FOSTER, & CO. | Wednesbury. | |
| Mr. JOHN WILSON | Dundyvan, Glasgow. | |

AGENTS.

Messrs. W. & J. H. JOHNSON, 166, Buchanan-street, Glasgow, and 20, St. Andrew's-square, Edinburgh.

Further particulars may be obtained on application to the agents; or to Mr. JEE, civil engineer, No. 6, John-street, Adelphi, London.

STIRLING'S PATENT ALLOYS.—RAILWAY CARRIAGE BEARINGS, MILL BRASSES, and all DESCRIPTIONS of CASTINGS, are MANUFACTURED by ALFRED BARRETT, Bishopsgate Foundry, Skinner-street, SOLE LICENSEE FOR LONDON.

BELLS of very superior quality (Stirling's Patent) are also SUPPLIED. 57

THE PATENT WATER-BALLAST STOWAGE BAGS and PUMPS having BEEN TESTED, and met the approval of practical men, the Public is respectfully informed that all is now prepared for FITTING UP SHIPS, by application to Mr. KIRK, at the Works, GIBSON'S BUILDINGS, NEWCASTLE-UPON-TYNE, where a pamphlet and illustrations may be obtained by, or forwarded to, parties, and where all inquiries will be fully replied to.—Newcastle-upon-Tyne, Aug. 15, 1851. 58

Now published, price 12s. 6d., and may be had from any respectable bookseller,

A PRACTICAL TREATISE ON THE WORKING AND VENTILATION of COAL MINES, with SUGGESTIONS for IMPROVEMENTS in MINING. By JOHN HEDLEY, Colliery Viewer.

London: J. Weale, No. 59, High Holborn. 59

THE EXHIBITION CHART.—The enormous circulation of the "WEEKLY DISPATCH," on Sunday last (by far exceeding the most sanguine expectations of the proprietors), has rendered it impossible to comply with the announcements previously made, that every purchaser should, on Sunday, the 11th inst., receive a copy of the Illustrated Coloured Chart of the Great Exhibition; it has, in consequence, been found necessary to POSTPONE the ISSUE of a sheet demanding such careful preparation, until SUNDAY, the 1st of February, on which day every purchaser who was disappointed in receiving a Chart of the 4th inst., will be entitled to a copy. 60

Orders may be given to all newsvenders in town or country, or to the office, No. 139, Fleet street, London.

THE MINING MANUAL AND ALMANACK FOR 1852, Under the immediate Patronage of His Royal Highness PRINCE ALBERT, K.G.

All communications, with statistical information and advertisements, are requested to be forwarded to the Editor, 25, Fleet-street, London, before the 24th January, 1852. 61

NEW MEDICAL JOURNAL.—This day is published, No. 1 of the "MEDICAL CIRCULAR AND GENERAL MEDICAL ADVERTISER," price 3d.—stamped, 4d.—in connection with the Medical Directories for England, Ireland, and Scotland. A record of the Sayings and Doings of the Medical Profession, Biographical, Bibliographical, and General; less than half the price of any existing medical journal—nevertheless the mirror of all and of every passing medical event. 62

Orders and communications to be sent (*pro tem.*) to the Editor, 4, Adam-street, Adelphi.

MEDICAL ADVICE on the SECRET INFIRMITIES of YOUTH and MATURITY, with 50 coloured engravings on steel.—Just published, and may be had in French or English, in a sealed envelope, 2s. 6d., or post free, from the author, for 42 stamps.

SELF-PRESERVATION: a Medical Treatise on the Physiology of Marriage, and on the Secret Infirmities and Disorders of Youth and Maturity, that are usually acquired at an early period of life, which debilitate the physical and mental powers, diminish and enfeeble the natural feelings, and exhaust the vital energies of Manhood; with Practical Observations on the Treatment of Nervous Debility, whether arising from these causes, close study, or the influence of tropical climates; local and constitutional weakness, syphilis, stricture, and all diseases and derangement resulting from indiscretion. With 50 coloured engravings, illustrating the Anatomy Physiology, and Diseases of the reproductive Organs, explaining their various structures, uses, and functions, and the injuries that are produced in them by solitary habit, excesses, and infection. By SAMUEL LA'MERT, M.D., No. 37, Bedford-square, London, Doctor of Medicine, Matriculated Member of the University of Edinburgh, Licentiate of Apothecaries' Hall, London. Dr. La'Mert having taken the highest medical honours, is one of the few legally qualified practitioners, who have exclusively, and for many years devoted their studies to the treatment of these complaints. 63

Sold by J. Gilbert, 49, Paternoster-row; Hannay, 63, Oxford-street; Sherie, Tichborne-street, Haymarket; Mann, 39, Cornhill; Gordon, 146, Leadenhall-street; or free by post for 42 stamps from the author's residence, who may be personally consulted on these disorders, or by letter daily from Ten till Two, and from Six till Eight.

# THE MINING SHARE LIST.

| Shares. | Mines. | Paid. | Last Price. | Present Price. | Dividends per Share Declared. | Last Paid. |
|---|---|---|---|---|---|---|
| 5120 | Alfred Consols (copper), Phillack | £3 | 16½ 17 | 16¾ 17 | £ 2 5 0 to Nov.1851 | £0 6 0 Nov. |
| 1248 | Allt-y-Crib (silver-lead), Talybont, Wales | — | 9 | 9 | 0 7 5 to Oct. | 0 5 0 " |
| 1624 | Balleswidden (tin), St. Just | 11¼ | 10 | | 9 2 to Oct. | 0 7 to Oct. |
| 4000 | Bedford United (copper), Tavistock Devon | 2½ | 6¼ | 6 6¼ | 3 3 to Dec. | 0 3 to Dec. |
| 5000 | Black Craig (lead), Kirkcudbrightshire | 5 | 4¼ 4 | | 0 2 6 to Nov. | 0 2 6 to Nov. |
| 64 | Boscaswell Downs (tin), St. Just | — | 100 | | 750 0 to May, 1849 | — |
| 100 | Botallack (tin and copper), St. Just | 182½ | 205 210 | | 445 0 to 5th Nov., 1851 | 5 0 to Nov. |
| 1000 | Bryntail, Llanidloes, Montgomeryshire | 2½ | 13 14 | | 0 5 to end June | 0 5 to June |
| 1000 | Callington (lead and copper), Callington, Cornwall | 80 | 4 | 3¾ | 6 0 to Sept., 1847 | — |
| 4000 | Calstock United (copper) | 2½ | 4¼ | | 0 5 to Oct., 1851 | 0 5 to Oct. |
| 1000 | Carn Brea (copper and tin), Illogan | 15 | 97½ | | 206 0 to Sept. 1851 | 2 0 to Sept. |
| 128 | Comford (copper), Gwennap, Cornwall | 70 | 10¾ 15 | 10¾ 12 | — | — |
| 256 | Condurrow (copper and tin), Camborne, Cornwall | 20 | 95 | 92¼ 95 | 13 0 to Oct. 1851 | 2 0 to Oct. |
| 128 | Cwmystwith (lead), Cardiganshire | 60 | 105 110 | | 5 0 to 1851 | 5 0 to 1851 |
| 1024 | Devon Great Consols (copper), Tavistock | 1 | 282½ | 282½ | 249 10 to Nov.1851 | 5 0 to Nov. |
| 160 | Dolcoath (copper and tin), Camborne | 252 | 28 | | 855 14 to 1847 | — |
| 128 | East Pool (tin and copper), Pool, Illogan, Cornwall | 24¼ | 120 | | 233 0 to 1843 | — |
| 94 | East Wheal Crofty (copper), Illogan, Cornwall | 125 | 150 | | 242 10 — | — |
| 128 | East Wheal Rose (silver-lead), Newlyn | 50 | 425 | | 2227 10 to 5th Sept. 1851 | 12 10 to Sept. |
| 494 | Fowey Consols (copper), Tywardreath | 40 | 39 | | — — | — |
| 3715 | General Mining Company for Ireland (copper and lead) | 1¼ | 5 | | 45 per cent. to June | 10 per ct. ¼ year |
| 100 | Goginan (lead), Cardiganshire, Wales | 5 | 150 | | 440 0 ,, | — |
| 96 | Great Consols (copper), Gwennap, Cornwall | 1000 | 200 | | 353 6 8 to January | — |
| 11000 | Great Polgooth (tin), St. Austell | 3 | 3 | | 0 2 to Sept. | 0 2 to Sept. |
| 119 | Great Work (tin), Germoe | 100 | 150 160 | | 120 0 to Nov. | 5 0 to Nov. |
| 1024 | Herodsfoot (lead), near Liskeard, Cornwall | 8¼ | 4 | | 0 7 6 to Aug. | 0 2 6 to Aug. |
| 1000 | Holmbush (lead and copper), Callington | 24 | 12¼ 13 | | 25 0 to Feb., 1844 | Feb., 1844 |
| 786 | Kirkcudbrightshire (lead), Kirkcudbright | 9¾ | 3¼ 4 | | 0 5 to Sept.1851 | 0 5 in Sept, |
| 1000 | Lewis (tin and copper), St. Erth | 17 | 12 | 11 | 2 0 to 1st Aug. | 0 10 to Aug. |
| 160 | Levant (copper and tin), St. Just | 2¼ | 140 | | 1034 0 to 5th Dec. | 2 0 to Dec. |
| 100 | Lisburne (lead), Cardiganshire, Wales | 75 | 650 | | 640 0 to 1st Aug. | 20 0 to Aug. |
| 5000 | Low's Patent Copper Smelting Company | 9 | 4 | 4 | 1 0 6 to July | 0 4 6 to July |
| 20000 | Mining Company of Ireland (copper, lead, and coal) | 7 | 5¼ | 5¼ | 7 10 6 to Feb., 1847 | 7 p.ct. p. annum |
| 200 | North Pool (copper and tin), Pool | 22½ | 170 | | 225 0 to 1st Nov., | 7 10 to Nov. |
| 140 | North Roskear (copper), Camborne | 10 | 180 | | 231 0 to Nov. | 5 0 to Nov. |
| 6000 | North Wheal Basset (copper and tin), Illogan | — | 9 10 | | 1 1 to 5th April | — |
| 128 | Par Consols (copper), St. Blazey | 55¾ | 550 | | 414 0 to Nov. | 40 0 to Nov. |
| 1160 | Perran St. George (copper and tin), Perranzabuloe | 21¼ | 40 | | 1 15 to June | 0 10 to 4th Ju |
| 200 | Phœnix (copper and tin), Linkinghorne | 30 | 240 | | 10 0 0 to March 5 | 5 0 to March |
| 560 | Providence Mines (tin) Uny Lelant | 20¼ | 22¼ | | 18 14 6 to Nov. | 0 10 to Nov. |
| 255 | South Caradon (copper), St. Cleer | 2¼ | 112½ | 115 117½ | 260 0 to Nov. | 2 10 to Nov. |
| 256 | South Tolgus (copper), Redruth, Cornwall | 16 | 150 | | 33 0 to 5th Dec. | 3 0 to Dec. |
| 248 | South Wheal Frances (copper), Illogan | 80 | 126 | 124½ | 107 15 to Nov. | 6 0 0 to Nov. |
| 1024 | Spearne Consols (tin), St. Just, Cornwall | 1¼ | 11 | 9 10 | 3 10 0 to Sept. | 0 2 6 to Sept. |
| 94 | St. Ives Consols (tin), St. Ive's | 80 | 125 | | 859 0 to Aug. | 4 0 to Aug. |
| 1000 | Stray Park and Camborne Vean (copper), Cornwall | 15 | 10 | | 11 10 — | — |
| 9600 | Tamar Consols (silver-lead), Beeralston | 4¼ | 3¼ 3¾ | | 2 11 to July, 1849 | — |
| 6000 | Tincroft (copper and tin), near Pool, Illogan | 7 | 9¼ | | 5 17 6 to Sept. | — |
| 512 | Trehane (siver-lead), Menheniot | ¼ | 5¾ 6 | 5 6 | 14 7 6 to Nov. | 0 0 to Nov. |
| 5000 | Treleigh Consols (copper), Redruth | 6 | 2¼ | 1¾ 2 | 1 3 to Oct., 1847 | 0 5 Oct. 1847 |
| 96 | Tresavean (copper), Gwennap, Cornwall | 20 | 200 | | 4080 15 to 1848 | — |
| 120 | Trethellan (copper), Gwennap, Cornwall | 5 | 12 12½ | | 402 10 to 5th April | — |
| 120 | Treskey and Barrier (copper), Gwennap | 130 | 210 215 | 210 215 | 253 5 to Nov. | 7 0 to Nov. |
| 100 | Trumpet Consols (tin), near Helston | 95 | 125 | 110 125 | 5 0 to Dec. | 5 0 to Dec. |
| 200 | United Mines (copper), Gwennap | 80 | 80 | | 2 10 to Sept. | 2 10 to Sept. |
| 1024 | Wellington (copper & tin), Perranuthnoe | 7¾ | 3¾ 4 | | 2 2 6 to March | 0 5 to March |
| 256 | West Caradon (copper), Liskeard, Cornwall | 20 | 117¾ | 117¾ 120 | 169 5 to Dec. | 4 0 to Dec. |
| 512 | West Providence (tin), St. Erth | 10 | 110 | | 10 0 to Nov. | 5 0 to Nov. |
| 256 | Wheal Basset (copper), Illogan | 10¼ | 375 380 | | 265 0 to 3d Dec. | 10 0 to 3d Dec |
| 256 | Wheal Brewer (copper), Gwennap, Cornwall | 2 | 7¾ | 7¾ | 5 0 — | — |
| 256 | Wheal Buller (copper), Redruth | 5 | 550 | | 121 10 to Nov. | 12 10 to Nov. |
| 124 | Wh. Castle and Boswedden (tin & copper) | 5 | 20 | | — — | — |
| 100 | Wheal Friendly (tin), St. Agnes | 70 | 31 | | 5 0 0 in 1850 | 5 0 in 1850 |
| 128 | Wheal Friendship (copper) Devon | 120 | 110 | | 2331 10 to Aug. | 6 0 to Aug. |
| 5000 | Wheal Golden Consols (silver-lead), Perranzabuloe | 3 | 6 7 9¾ 9¾ | 7 8 9¾ | 1 0 to July | 0 5 to July |
| 430 | Wheal Lovel (tin), Helston | 33 | 31 | | 10 0 to 7th Nov. | 2 0 to Nov. |
| 112 | Wheal Margaret (tin), Uny Lelant | 79 | 135 140 | | 190 0 to Dec. | 3 0 to Dec. |
| 512 | Wheal Mary Ann (lead), Menheniot | 5½ | 43¾ | 45 | 21 5 to 21st Aug. | 3 0 to Aug. |
| 40 | Wheal Owles, St. Just, Cornwall | 140 | 230 | | 120 0 — | — |
| 240 | Wheal Reeth (tin), Uny Lelant | 20¼ | 80 | 85 | 30 0 to Nov. | 2 10 to Nov. |
| 198 | Wheal Seton (tin and copper), Camborne, Cornwall | 107 | 202¼ | 200 | 200 10 to 5th Dec. | 5 0 to Dec. |
| 520 | Wheal Trelawny (silver-lead), Liskeard, Cornwall | 8¼ | 43 | 40 41 | 26 10 to April | 2 0 to May |
| 1024 | Wheal Tremayne (tin and cop.), Gwinear, Cornwall | 9¼ | 25 | 25 | 7 5 to Dec. | 0 10 to Dec. |
| 5000 | Wicklow (copper), Wicklow | 5 | 31 | 31½ | 313 per cent. Dec, | 18 p. ct. end Dec. |

## FOREIGN MINES.

| | | | | | | |
|---|---|---|---|---|---|---|
| 5000 | Alcen Mining Company (copper), Norway | £14¼ | 2 | | 3 0 0 to Mar., 1848 | — |
| 10000 | Brazilian Imperial (gold), Brazil | 24½ | 1¾ ¾ | 1¼ | 3 17 6 to Dec., 1844 | — |
| 12000 | Cobre Copper Company (copper), Cuba | 40 | 34½ | 35 | 49 12 to Dec. 4, 1851 | 4l. to Dec. |
| 10000 | Copiapo Mining Company (copper), Chili | 14 | 4 5 | | 3 13 0 to Oct., 1850 | 8s. to Oct., 1850 |
| 20000 | General Mining Association (iron & coal), Nova Scotia | 20 | 10½ 11 | | 6 10 0 to June, 1851 | 10s. June, 1851 |
| 2700 | Marmato (gold), Columbia | 2½ | 12 | | 3 0 0 to Dec., 1851 | 1l. to Dec., 1851 |
| 5051 | Mexican Company (silver), Mexico | 89½ | — | | 0 8 6 end of 1846 | 4s. in 1846 |
| 17000 | Royal Santiago (copper), Cuba | 12 | 5¼ 5 | 5¼ | 33 4 0 to July, 1846 | — |
| 11000 | St. John del Rey (gold), Brazil | 15 | 22 | | 12 17 6 to Dec., 1850 | 1l. 10s. to June 7 |
| 43174 | United Mexican (silver), Mexico | Av. 28½ | 2¼ ⅜ | 2⅜ | 1 12 6 to Feb. 1850 | 7s. 6d. Feb., 1850 |

## MINES WHICH HAVE SOLD ORES.

| Shares. | | Paid. | Last Price. | Present Price. |
|---|---|---|---|---|
| 940 | Balnoon Consols (tin), Uny Lelant | — | 3 | |
| 508 | Bell and Lanarth (copper), Gwennap | 6 | 2¼ | |
| 2000 | Bishopstone (silver-lead), Glamorganshire | 4 | 4¼ | |
| 8000 | Blaenavon (iron), South Wales | 50 | 12 | |
| 1024 | Bodmin Consols (lead), Wadebridge | 7 | 5¼ | 5¼ |
| 1024 | Bodmin Wheal Mary (copper), Bodmin | 10 | 5 | |
| 120 | Bolowall and Nanpean (tin), St. Just | 20 | 18 | |
| 1024 | Boringdon Park (silver-lead), Plympton | 3 | 4¼ 5 6 | |
| 240 | Boscean (tin), St. Just | 15 | 9 | |
| 2400 | Bosorn (tin), St. Just | 1 | 2 | 5 |
| 5250 | Bottle Hill (copper) Plympton | 1 | 2⅜ | |
| 14000 | Braich Goch Slate and Slab Quarries | ½ | ⅛ | |
| 2000 | Bronfloyd (lead), Wales | 1½ | ⅛ | |
| 2400 | Bryn-Arian (lead), Cardiganshire | 2½ | 1 ¼ | |
| 2000 | Bwlch Consols (silver-lead), Cardiganshire | 4 | 7 | 7 |
| 4090 | Calstock Consols (copper) | 4 | 1¾ | |
| 1000 | Camborne Consols (copper), Camborne | 7 | 4¼ | |
| 2000 | Carbona (tin and copper), Crowan | 4 | 7 | |
| 3000 | Carthew Consols (cop. & lead), Wadebridge | 5¾ | 4 | |
| 1056 | Carvannall (copper), Gwennap | 4¼ | 12¼ | 20 |
| 200 | Cefn Bruno (lead), Cardiganshire | 21 | 45 | |
| 1024 | Chyprase (tin and copper), St. Enoder | 3¾ | 5¼ | |
| 2510 | Cook's Kitchen (copper and tin), Illogan | 15¼ | 4¼ | 5¼ |
| 1000 | Copper Bottom (copper), Crowan | 7 | 3½ | |
| 900 | Court Grange (silver-lead), Cardiganshire | 10 | 12 | |
| 1600 | Craig-y-Mwyn (lead), Llanrhiadr, Mont | 8¼ | 10¼ | |
| 256 | Crane and Bejawsa (copper), Camborne | 21¼ | 27½ | |
| 1000 | Cwm Daren, Wales | 2 | 3¼ | |
| 1000 | Cwm Erfin (lead), Cardiganshire | 6 | 2 | |
| 2000 | Cyfannedd Fawr (lead), Lanegryn | ¼ | 1 | |
| 3000 | Dalrhiew (copper and lead), Brecon | 1¼ | 5 | |
| 1000 | Daren (silver-lead), Cardiganshire | 3 | — | |
| 7100 | Derwent (silver-lead), Durham | 10 | 2 | |
| 4155 | Devon and Courtenay Consols (copper) | 2¼ | ¼ ⅜ | |
| 1024 | Devon and Cornwall United (copper), Tav. | 10 | 6¼ 7 | |
| 5120 | Dhurode (copper) Ireland | 2 | 5 | |
| 672 | Ding-Dong (tin), Gulval | 5 | 7 | |
| 4000 | Dolfrwynog (copper), Merioneth | ¼ | 1 | |
| 2560 | Drake Walls (tin and copper), Calstock | 6¼ | 6¼ | |
| 128 | Drift Moor (tin), Sancreed | 2 | 2 | |
| 3000 | Dyfngwm (lead), Wales | 10¼ | 9 | 9¼ |
| 1024 | East Alfred Consols (lead & cop.) | 2¼ | 5 | 5 |
| 256 | East Basset (copper) Redruth | 15 | 15 | |
| 1948 | East Crowndale (copper), Tavistock | 6 | 2 | |
| 300 | East Daren (lead), Cardiganshire | 19 | 60 | 65 |
| 4000 | East Gunnis Lake Junction (copper) | ¼ | 1¼ | |
| 9000 | East Tamar Consols (sil.-lead), Beerferris | 1¼ | ⅛ | |
| 2048 | East Wheal George (cop.), Walkhampton | 1 | 2¼ | |
| 512 | East Wheal Leisure (copper), Perran | 14 | 15 | |
| 1024 | East Wheal Margaret (tin and copper) | 2¼ | 3¼ | |
| 1280 | Esgair Llee Llanfihangel-y-Croythin | 6¼ | 6¼ ⅛ | |
| 12000 | Gallt-y-Maen (silver-lead), Merioneth | 2 | 2¼ 2¾ | |
| 5000 | Garreg (lead), Flint | 1¼ | ¾ 1 | 1 ⅛ |
| 2500 | Georgia Consols (tin), St. Ive's | 2¼ | 5 | |
| 256 | Gonamena (copper), St. Cleer | 48 | 12 | |
| 243 | Grambler & St. Aubyn (copper) Redruth | 86¼ | 22½ | |
| 9000 | Great Cowarch (silver-lead), Merioneth | 2 | 1¼ | |
| 5120 | Great Wheal Baddern (tin and silver-lead) | 2¼ 2⅛ | 2¼ | |
| 1026 | Gustavus Mines (copper), Camborne | 7 | 3¾ 4 | |
| 512 | Halamanning and Croft Gothal, copper | 50 | — | |
| 512 | Hawke's Point (copper), Uny Lelant | 8¼ | 5 | 5¼ |
| 6000 | Higuston Down Con. (copper), Calstock | 2¾ | 3¼ | |
| 873 | Keswick (lead), Portinscale, near Keswick | 13 | 4 | |
| 1024 | La Min (Gwinear), tin and copper | 3¼ | 4 | |
| 1742 | Lanherooe Wheal Maria (copper & tin) | 13 | 7¼ | |
| 252 | Lanarth Consols (copper), Gwennap | 4 | 4¼ | |
| 256 | Lelant Consols (tin), Uny Lelant | 64 | 11 | |
| 13000 | Llwynmalees (lead), Cardiganshire | 21⅛ | ⅛ | |
| 6000 | Marke Valley (copper), Caradon | 10 | 1 | |
| 5000 | Mendip Hills (lead), near Bristol | 3¾ | 1¾ 1¾ | |
| 5000 | Merilyn (lead), Flint | 2¾ | 5¼ | 6¼ 6¾ |
| 1024 | Mill Pool (tin and copper), St. Hilary | 3¼ | 1¾ | |
| 256 | Mineral Court (tin), near St. Austell | 25¾ | 13 | |
| 330 | Nansegollan (tin and copper), Camborne | 9 | 9 | |
| 200 | Nanteos (lead), Cardiganshire | 34 | 20 | |
| 3000 | Nant-y-Car (copper), near Rhayader | 2 | 7¼ | 8 9 |
| 2000 | North Downs (copper), Redruth | ¼ | 2 | 1¾ 1¾ |
| 2000 | North Levant (tin and copper), St. Just | 1¼ | 2 | |
| 1200 | North Wh. Buller, or Gt. South Tolgus | 6 | 7¼ | |
| 512 | Old Brimpts (tin), Lydford, Ashburton | 2 | 5 | |
| 5000 | Pendarves and St. Aubyn (tin and copper) | 1¼ | 1¾ | |
| 1026 | Pendarves Consols (copper), Camborne | 1¼ | 2¼ 2¾ | |
| 2048 | Pentire Glaze (silver-lead), St. Minver | ¼ | 7 | |
| 1024 | Penzance Consols (tin) Sancreed | 2¼ | 1¾ | |
| 1000 | Peter Tavy and Mary Tavy (copper) | 4¼ | 3¾ 4 | |
| 1000 | Polberro (tin), St. Agnes | 15 | 13¼ | |
| 2000 | Polgear (copper and tin) | 1 | 3 | |
| 2500 | Rhoswydol and Bacheiddon (lead) Wales | 11¼ | 18 19 | |
| 1948 | Rix Hill (tin), Tavistock | 1 | 1 | |
| 5000 | Rocks and Treverbyn (tin), St. Austell | 4¼ | 4 | |
| 1024 | Sidney Godolphin (copper), Breage | 4¼ | 3¾ 4 | |
| 956 | South Friendship Wh. Ann (copper & tin) | 30 | 28 | |
| 2000 | South of Scotland | 1¾ | 1 | |
| 300 | South Speed (copper and tin), Uny Lelant | 15 | 30 | |
| 9000 | South Tamar (silver-lead), Beer Ferris | 1⅝ | 2⅜ | 2⅜ |
| 280 | Spearne Moor (copper), St. Just | 30 | 40 | 2¼ |
| 1024 | St. Aubyn and Grylls (copper and tin) | 3 | 11 | |
| 999 | St. Minver Consols silver-lead) | 1 | 3 | |
| 687 | Tavy Consols (copper), near Tavistock | 9 | 5 | |
| 120 | Tokenbury (copper), St. Ive, Liskeard | 11¼ | 10 12 | |
| 1024 | Trannack and Bosence, St. Erth | 1¼ | 3 3¼ | |
| 1024 | Trannack United Mines (tin and copper) | 1¼ | 3¾ | |
| 1024 | Trebarvah, Perranuthnoe | 1 | 4 4¼ | |
| 224 | Tregorden (silver-lead) Wadebridge | 17¼ | 5 | |
| 1000 | Treloweth (capper), St. Erth | 6¼ | 5¼ | |
| 600 | Trelyon Consols (tin), St. Ive's | 4¾ | 2¼ | |
| 2000 | Trenance (copper), Helston | 7 | 5 | |
| 2048 | Trevylian (tin and copper) | 2¼ | 2¼ 3 | |
| 500 | Tywarnhayle (cop.), Illogan & St. Agnes. | 60 | 15 | |
| 1024 | United Mines (copper and tin), Tavistock | 12¼ | 10¾ | |
| 5000 | Warleggan Consols (copper) | 1 | ⅛ | |
| 1024 | West Alfred Consols (copper), Phillack | 10 | 11¼ | 11 |
| 6000 | West Basset (copper), Illogan | 1¾ | 5¼ | |
| 1024 | West Ding-Dong (tin), Sancreed | 1 | 2¾ 3 | |
| 512 | West Fowey Con, (tin & cop.), St. Blazey | 40 | 50 | |
| 2048 | West Goginan (silver-lead), Cardiganshire | 1¼ | 3 | |
| 1024 | West Par Consols (copper), St. Blazey | 10 | 10 | |
| 200 | West Seton (copper), Camborne | 71 | 100 | |
| 940 | West Tolgus (copper), Illogan | 14¼ | ⅛ | |
| 120 | West Trethellan (copper), Gwennap | 15 | 10 12½ | |
| 512 | West Wheal Frances (copper), Illogan | 9 | 12 | |
| 3715 | West Wheal Jewel (tin and copper) | 12 | 1¼ | |
| 500 | West Wheal Towan (cop. & tin), Illogan | 21 | 11¾ | |
| 1024 | West Wheal Treasury (copper), Gwinear | 8 | 6 | 6½ |
| 1024 | West Wheal Virgin (tin), Sancreed | 2 | 1 | |
| 1070 | Wheal Adams (lead), Christow, Exeter | 13¾ | 16 | |
| 1000 | Wheal Agar (copper), Illogan | 6 | 5 | |
| 1228 | Wheal Arthur (silver-lead&cop.), Calstock | 2 | 6 | |
| 3072 | Wheal Augusta (tin), St. Just | 1 | 1¼ | |
| 240 | Wheal Bal (tin), St. Just | 5¼ | 5¼ 7 | |
| 1024 | Wheal Crebor (copper), Tavistock | 5 | 6 | |
| 182 | Wheal Elizabeth (copper), Redruth | 23 | ⅛ | ⅛ |
| 182 | Wheal Ennis (lead), St. Erme | 17 | 15 | |
| 764 | Wheal Franco (copper), near Tavistock | 14¼ | 5 6 | |
| 256 | Wheal Gennys (lead), St. Buderce | 14 | 25 | |
| 2560 | Wheal Harriet (copper), Camborne | 1 | ⅛ | |
| 6000 | Wheal Langford (copper and silver-lead) | ¾ | 1¾ | |
| 1024 | Wheal Mary Emma (tin & lead), Lydford | 3¾ | 1¾ | |
| 3000 | Wheal Penhale (lead and copper) | 3⅞ 1⅜ | 3¾ | |
| 128 | Wheal Plenty (copper), Redruth | 29 | 35 | |
| 256 | Wheal Prudence (copper), St. Agnes | 3¾ | 4 | |
| 1024 | Wheal Speedwell (copper and tin) | 3¾ | 3¾ | |
| 1024 | Wheal Squire (copper), St. Erth | 4 | 3¾ | |
| 1000 | Wheal Treasury (copper and tin) | 1 | 1⅛ | |
| 512 | Wheal Trefusis (copper), Gwennap | 10¾ | 7⅛ 8 | |
| 8448 | Wheal Trewane (silver-lead), St. Kew | 1¾ | 1⅝ | |
| 267 | Wheal Tryphena (tin and cop.), Redruth | 42 | 18¾ | |
| 126 | Wheal Union (copper), Redruth | 40 | 25 | |
| 6000 | Wh. Unity Consols (cop. & tin), Gwinear | 4 | 3¾ | |
| 1024 | Wheal Uny (tin and copper) Redruth | 5 | 6 6¾ | |
| 1000 | Wheal Vincent (tin), Alternun | 7¾ | 5 | |
| 4096 | Wheal Zion (copper and lead), Tavistock | 1⅝ | 3 2½ | 3 3¼ |
| 2048 | Yeoland Consols (tin), Plymouth | 1¾ | 3 | |

## MINES WHICH HAVE NOT SOLD ORES.

| | | | | |
|---|---|---|---|---|
| 1024 | Appledore (silver-lead and cop.) St. Ives | 3¾ | 1¾ 1¾ | |
| 5000 | Bargally (lead), Cairnsmore | 1 | 1 | |
| 3000 | Beacon (tin), Roche, Cornwall | 2s | 3s | |
| 256 | Berriow (copper), Liskeard | 2¼ | 1 | |
| 8000 | Bicton Consols, Linkinghorne | 1 | 1 | |
| 32 | Black Burn, Alston, Cumberland | 20 | 100 | |
| 6000 | Bolenowe | 2¾ | 4 | |
| 7500 | Busparvo (tin and copper), Camborne | 1 | 1⅛ | |
| 812 | Butterdon (lead), Menheniott | 4¼ | 6¾ 7 | |
| 1000 | Cae-Gynon (silver-lead), Cardiganshire | 1 | 2 | |
| 3000 | Cally (copper and lead), Kirkcudbrightsh. | 1 | 1¼ | |
| 1168 | Caradon Great Cons. (cop.), Linkinhorne | 7 | 2 | |
| 1536 | Caradon Vale (copper and lead), St. Ive | 3¾ | 2¼ | |
| 6000 | Caradon Wood (lead), Linkinghorne | — | 2 | |
| 5120 | Carn Valley, St. Dennis | 1 | 5 | 5 |
| 512 | Caroline and Fanny Consols, St. Minver | 3 | 3¼ | |
| 2000 | Cassandra Anne (lead & cop.), Stoke Clim. | 5 | 6¼ | |
| 2048 | Castle Dinas (tin), St. Columb | 1 | 1⅝ 2¼ | |
| 1024 | Cefn Gwyn (silver-lead), Cardigan | 21s | ⅛ | |
| 1024 | Clijah and Wentworth (tin & co.), Redruth | 2¼ | 3¼ | |
| 1000 | Cockley Beck (copper) | ¼ | 2 | |
| 2000 | Coed Mawr Pool (lead), Llawrnst | 10 | 10 | |
| 211 | Craddock Moor (copper), St. Cleer | 31 | 8 | |
| 6000 | Cwmdyle Rock and Green Lake (copper) | 3 | 3¼ 3¾ | |
| 2000 | Cwm Selon | — | 5 | |
| 5000 | Devon Consols North (cop.), Lamerton | 2¼ | 2¼ | |
| 2048 | Devon Consols West (copper), Stoke Clim. | 1¼ | 1¼ 1 | |
| 768 | Devon Great Tineroft, North Bovey | ¼ | 4 | |
| 1536 | Duke of Cornwall (copper), St. Winnon | 2 | 3¼ | |
| 1024 | East Balleswidden (tin), Sancreed | 2¼ | ⅛ | |
| 5000 | East Black Craig (lead), Kirkcudbright | 2s | 1 | |
| 2048 | East Boringdon Park, Plympton | 1¼ | 2¼ | |
| 1024 | East Buller (copper), near Redruth | 3¼ | 3 | |
| 128 | East Carn Brea (copper), Redruth | 4 | 2¼ | |
| 512 | East Seton and Wheal Maude, Redruth | 7¼ | 7¼ | 8¼ |
| 256 | East Tolgus (copper), Redruth | 8 | 8¼ | |
| 1000 | East Trescoll | 1 | 3¼ | |
| 128 | East Wheal Agar | 6 | 6 | |
| 2048 | East Wheal Josiah (copper), Tavistock | 1⅛ | ⅜ | |
| 3000 | East Wheal Rashleigh, Lanreath | 4s | 1 1¼ | |
| 1000 | East Wheal Reeth, St. Ives | 2¼ | 2¼ | |
| 4000 | East Wheal Russell (copper), Tavistock | 1¼ | 4 | |
| 1024 | Exmoor Eliza (copper), South Molton | 4¼ | 3 | |
| 6000 | Forest (copper and silver-lead), Devon | 1¼ | 1 | |
| 1024 | Froidd Llwydd Mines (lead), Wales | 1¼ | 3¼ | |
| 1000 | Gellirhelvin (silver-lead), Cardiganshire | 1 | 5 | |
| 256 | Glynn Wheal Mary [copper), Cardingham | 1¼ | 1¼ | |
| 6500 | Great Bryn Consols (copper and tin) | 1 | 3 | |
| 1024 | Great Sheba Consols (tin and copper) | 9¼ | 4 5 | |
| 1024 | Great Wheal Alfred (copper), Phillack | 10 | 8 9 | |
| 5000 | Great Wheal Martha (cop.), Stoke Clims. | — | 1¼ | |
| 512 | Great Wheal Rough Tor Consols (copper) | 29 | 15 | |
| 32 | Helvellin Mining Company, Westmoreland | 25 | 30 | |
| 1500 | Hennock (silver-lead), Hennock | 3¼ | 2¾ 3 | 3 3¼ |
| 10000 | Hibernian (copper) Ireland | 12¼ | ⅛ ⅛ | |
| 20000 | Kenmare and West of Ireland (copper) | 1 | 1¼ | |
| 3300 | Kilbricken (silver-lead), Clare, Ireland | 3 | 3 | |
| 1024 | Kingsett and Bedford (lead and copper) | 5 | 2 | 1¼ ⅜ |
| 5000 | Lanabar, Merionethshire, North Wales | — | | |
| 1024 | Lantallack (silver-lead, &c.), Landrake | ¼ | 3 | |
| 5056 | Lydford Consols (lead) | — | 1¼ | |
| 3600 | Llynvi Iron (iron) | 50 | 50 | |
| 512 | Melin Llyn Pair (silver-lead), Merioneth | 4 | 8 | |
| 2000 | Molland | 3 | 1⅝ 2 | |
| 160 | Morvah Consols (tin and copper) | 2 | 1¼ | |
| 5000 | New Copper Bottom (copper) Bridestowe | 1¼ | 1¼ | |
| 2048 | New East Crowndale (copper and tin) | 1¾ | ⅛ | |
| 1024 | North Buller (copper), Redruth | 7 | 17½ 19 | |
| 256 | North Fowey Consols (capper), Tyward | 4¾ | 7¼ | |
| 2000 | North Tamar (silver-lead & copper) Devon | 2 | 3¼ 4 | |
| 256 | North Tolgus (copper), Redruth | 13¼ | 2¾ | |
| 16000 | North Trelawny (lead and copper) | ⅛ | 2¾ 3 | |
| 1024 | North Wh. Robert (copper), Walkhampton | 3¾ | 1¼ ⅜ | |
| 1060 | North Wheal Trelawny (lead), Quethlock | 11s | ⅜ | |
| 2048 | Okel Tor (lead), Calstock | ¼ | ⅛ | |
| 256 | Old Wheal Basset (copper), Redruth | 2 | 2 | |
| 406 | Penhauger (lead), Menhenniot | 2 | 2¼ | |
| 1000 | Penralt | 1 | 2 2¼ | |
| 700 | Pen-y-bank and Erglodd (lead) | 4¼ | 4 | |
| 1024 | Praed Consols (tin), Towednack | 1¼ | 1/ 1s | |
| 1024 | Prince Albert (tin), Perranzabuloe | ⅛ | 1¼ | |
| 2048 | Runnaford Coombe (tin) | 3 | 2⅜ | |
| 10000 | Silver Valley & Wh. Brothers (silv.-lead) | 1 | ¼ | |
| 2000 | South Carn Brea (copper), Illogan | 10 | 4 | |
| 1024 | South Plain Wood (copper), Ashburton | 5¼ | 6 | |
| 198 | South Trelawny (lead), near Liskeard | 35¼ | 4 | |
| 2000 | South Wales Mining Company (lead) | 1¾ | 2 | |
| 256 | South Wheal Josiah (copper), Calstock | 2 | ¼ | |
| 2500 | St. Agnes Beacon (tin and copper) | 21s | 4 | 4 |
| 5000 | Temple Consols (tin & copper) Cornwall | 2 | 5 | |
| 2048 | Trebell Consols (tin and copper), Lanivet | 1¼ | 1¼ | |
| 600 | Tregardock (lead), St. Teath | 1⅜ | 10⅜ | |
| 1024 | Tremar (copper), Liskeard | 3¾ | 2 | 2¼ 3 |
| 6000 | Trenault (lime quarries) | 21s | 1 | |
| 512 | Trethevy (copper), St. Cleer | 13 | 6¼ | |
| 512 | Treville (lead), Lewanick | 5¼ | 5 | |
| 604 | Trowan Consols (tin), Towedneck | 7 | 9 | |
| 4000 | Tyn-y-Worglod (slate), near Carnarvon | 4 | 4 | |
| 512 | Tywardreath (copper), St. Blazey | 8 | 12¾ | |
| 1024 | West Beam (tin), St. Austell | 29s 6d | 2¾ | |
| 5000 | West Callington, copper | 1 | 1¼ | |
| 5000 | West Cumberne (copper and tin) | 2 | 4 | |
| 256 | West Damsel (copper), Gwennap | 5¾ | 70 | |
| 1024 | West Downs (copper and tin), Whitchurch | 2¾ | 2 | |
| 1020 | West Nantymwyn | 1¼ | 1 | |
| 12 | West Pentire (copper and lead), Padstow | ⅛ | ⅛ | |
| 1024 | West Phœnix, Linkinghorne | 7 | 8 | 7 8 |
| 6500 | West Polgooth (tin), St. Ewe & St. Mewan | 1 | 1 | |
| 256 | West Sharp Tor (copper) Linkinghorne | 22 | 49 | |
| 1110 | West United Hills (copper), Illogan | 4¼ | 2¾ | |
| 5000 | West Wheal Alfred (copper) Hayle | 1 | 1¼ 1⅝ | |
| 64 | West Wheal Darlington (cop.), Ludgvan | 45 | 45 | |
| 4000 | West Wheal Friendship (copper), Devon | 2 | ⅛ | |
| 2048 | West Wheal Rose, lead | 2 | 2¾ | |
| 4000 | West Wheal Russell, Tavistock | ⅛ | 1 1¼ | |
| 1024 | West Wheal Sheba | 10s | 1 | |
| 1024 | Weston (lead), Cherbury, Shropshire | 1¼ | ⅛ ⅛ | |
| 300 | Wheal Arthur (lead), near East Wh. Rose | 17 | 49 | |
| 2500 | Wheal Caradon (copper), St. Cleer | 2 | 2 | |
| 256 | Wheal Carpenter (tin), Gwinear | 1¼ | 2¾ | |
| 1024 | Wh. Carpenter (lead & cop.) S. Sydenham | 3 | 4 | |
| 1024 | Wheal Catherine (silver-lead), Liskeard | 2⅜ | 3¼ | |
| 1024 | Wheal Chiverton (lead), Perranzabuloe | 3¾ | 3¾ | |
| 512 | Wheal Constance (lead), Newlyn | 3 | 10 | |
| 1024 | Wheal Cupid (copper), Gwennap | 2¼ | 7¼ | 7¼ |
| 3000 | Wheal Dora (tin and copper), St. Cleer | 3¾ | 5¼ | |
| 4096 | Wheal Edward (copper), Calstock | ¼ | ⅛ | |
| 1024 | Wheal Emily (antimony and lead) | 3 | 5 | |
| 1024 | Wheal Emma | ¼ | 5 | |
| 1070 | Wheal Enys (tin), Wendron | 2¼ | 1¾ | |
| 5000 | Wheal Fanny (lead) | — | 3 | |
| 916 | Wheal Fortescue (copper), Tavistock | 5¼ | ⅛ | |
| 2048 | Wheal Fortune (lead), Landulph | 2s | 2 | |
| 1536 | Wheal Gill (cop. and lead), Liskeard | 4¼ | 2 | |
| 2048 | Wheal Hamlyn, near Oakhampton | 1¼ | ⅛ | |
| 2048 | Wheal Harris (lead), near Tavistock | ⅛ | 1 | |
| 1000 | Wheal Lemon, Germoe | 4¾ | 2 | |
| 942 | Wheal May (silver-lead and copper | 3¼ | 2¾ | |
| 1024 | Wheal Mary Ann (copper), Bridestow | — | 2 | |
| 1024 | Wheal Mary Emma East, Tavistock | 1¼ | 2¼ 3 | |
| 6144 | Wheal Maudlin, Llanlivery | 1 | 5 | |
| 1024 | Wheal Neptune (copper), Perranuthnoe | 3¼ | 3¼ | |
| 949 | Wheal Oak, near Helston | 1¾ | 1¾ | ⅛ |
| 128 | Wheal Pollard (copper), St. Cleer | 15¼ | 10 | |
| 5000 | Wheal Providence, South Sydenham | 